

# MANUFACTURERS' RECORD.

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## Manufacturers' Record.

RICHARD H. EDMONDS, President.  
THOMAS P. GRASTY, Vice-President.

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### COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week. For the first issue in the month we should receive copy by Friday Morning of the week preceding.

ALFRED B. SHEPPERSON,  
Cotton Exchange Building,  
New York, May 24, 1901.

Manufacturers' Record, Baltimore, Md.:  
Dear Sirs—Inclosed please find check on Bank of New York for \$4 for subscription to your most interesting and valuable Journal. You keep fully abreast of the times and keenly alert to the industrial activities of the South. Every Southern merchant, manufacturer, farmer and banker should subscribe to the Manufacturers' Record. Mr. Edmonds' article on Beaumont is a most timely and interesting contribution. It is infinitely the best account of the oil fields which I have seen, and I congratulate him on it. Yours very truly,  
ALF B. SHEPPERSON.

### A World-Wide Reading.

Some weeks ago the Manufacturers' Record published a letter from Mr. J. J. Cassidy of Toronto, editor of the Canadian Manufacturer, in which he asked where talc could be obtained for sale to a Canadian manufacturer. In reply to this request Francesco Stornello of Genoa, Italy, wrote to the Manufacturers' Record calling attention to a product of Italian caves composed of crystallized talc without mica, and suggesting that it was good to be used in the manufacture of paper, medicinal and toilet soaps, porcelain and pottery wares, colors and varnishes, leather dressing, etc. This letter was sent to Mr. Cassidy, who, in acknowledging it, writes:

We thank you for publishing the item in your paper calling forth this letter, and beg to say that through it we have received quite a large innovation of letters, which indicate the widespread circulation of your most valuable journal. The writer, being a Southerner by profession, takes much pride in observing the splendid appearance of a trade journal published in that section which gives evidence of a very deservedly prosperous existence, and the equal of any similar journal of which he has knowledge.

Mr. Walter M. Jackson, general manager of the North Augusta Development Co., Augusta, Ga., in renewing his subscription to the Manufacturers' Record, writes:

I always read the Manufacturers' Record with great interest, and I think it has done

more for the upbuilding of the South than any paper in this country.

Mr. C. J. Shelverton of Austell, Ga., writing to the Manufacturers' Record, says:

I must congratulate you on the great work you are doing for the South and the position you have taken in all matters during the past year.

### America vs. Europe.

The Leipziger Tageblatt suggests that the only means it sees of protection against American goods is a middle European or a European tariff alliance against America in case the latter does not permit foreign goods to compete in its own markets. The Tageblatt is particularly impressed with the fact that even in fancy articles, in which the European markets have set the styles for the entire world, American manufacturers are beginning to be of importance. It finds that British calico prints are having competition from America, and that American cotton stuffs have been offered in England with much success; that a New York manufacturing company is to found a Paris house for the introduction of its fancy woven stuffs for women's dresses into Europe; that ladies' trimmed hats have already been introduced on the Continent, and that American shoe factories and department stores, by planning to establish branches in Germany and England, are even threatening the retail business.

The German newspaper likens America twenty years ago to a boy with an insatiable appetite feeding and amusing himself at the expense of Europe, his old aunt. Now the boy has become a man, standing on his own feet and reaching a height where he can get along in most things without European import. It says:

With a quickness almost without example in the history of civilization, an industry has been developed which, without any old tradition, produces in many respects products worthy to be used as models. What is lacking in tradition is made up for twice and three times in machines and talent for invention and organization, more favorable conditions of production and cheaper raw material. It is difficult to do anything against this. We cannot forbid America to develop its industries and to expand the same with the help of its gigantic trusts to a dizzy height. We cannot prevent it, unfortunately, from placing a preposterous duty on manufactures which simply cuts off all foreign competition; but what we should strongly fight against is being pushed out of our own market by the underbidding of American industries. The importation of American goods into Europe is becoming steadily more dangerous.

Granted that American competition is dangerous to Europe, the question is, What is Europe going to do about it? In existing lights the proposed tariff alliance does not seem to offer a solution of the difficulty, for while America has gained its feet and at the same time a magnificent measure of independence of its foreign relations, it has also become rather a necessity to them. It has not only been a feeder of the peoples upon whose labor European commerce depends, but it has also been sending Europe the raw material for

industry, and now seems destined to become a large contributor to the European supply of fuel, for example, in Austria-Hungary, where United States Consul Frank D. Chester of Budapest believes that the United States has only to step in and win the market.

As a matter of fact, the whole world of commercial industry is in a state of flux, consequent upon the extraordinary development of machinery and the tendency toward economic combinations, the outcome of which may hardly be definitely forecast. At this moment, though, the United States does not have the appearance of a future sufferer.

### A Square Issue in South Carolina.

We hope that the good State of South Carolina will not consider the case of Senators Tillman and McLaurin merely in resentment at their making personal issues of themselves, and so turn to consider other candidates. There was nothing high-handed or upish in the action of these gentlemen. They are so intense in their belief that they are right that they invite the direct judgment of their State, and they ought to have it. One of them should be re-elected.

Surely the questions which McLaurin has raised and on which Tillman is his antagonist are more important than a mere matter of "calling down" either of these gentlemen. Let's have the issue fair and square—Tillman against McLaurin. The American public will know what it means.—New York Sun.

The Sun is correct. The questions raised by this contest are too important, not simply to South Carolina, but to the whole South, to be sidetracked by anything else. The great question before South Carolina—the one which concerns every man in that State—is whether Tillman or McLaurin best represents that grand old Commonwealth, with all its high and noble history and its promising future. The issue is clear-cut; no local elections are at stake, and for once the people of South Carolina have a chance to show the world where they stand on the great questions of the day. Commenting on Senator McLaurin's Greenville speech the New York Times says:

He made it plain that the issue is now drawn between the brains, the wealth and the enterprise of the State on the one hand, and the populist remnant of its democratic party on the other. This means a war to the knife with Tillman, and a contest in which the defeat of McLaurin would be more disastrous for the party in South Carolina, by alienating the best elements of its strength, than anything which could now happen to it. Senator McLaurin will remain a democrat, doing all in his power to awaken his party to a sense of its responsibilities and interests.

There is nothing in this movement to excite surprise. Senator McLaurin is a man of clear perceptions, great courage and little respect for a blind adherence to error for no better reason than that the conventions of Kansas City and Chicago so decreed. He realizes that the South is inseparably linked with the North by the bonds of common interests and interdependent relations; that what is good for the material interests of the North is as good for those of the South, and for the same reason. He is daily gaining strength and recruiting a formidable following, while Senator Tillman, once the undisputed "boss" of the State, is losing ground as rapidly. Of the issue of this contest it is still too early to speak with confidence. A year may bring about great changes in the

relative positions of both parties in interest, but it requires no prophetic foresight to see that such a reform as Senator McLaurin has started is a revolution of the kind that has in it the vital seeds of continuance; that it is in line with the political and economic development of the South, and that it has the support of the best element of the population of the State.

The Manufacturers' Record takes no part in politics, and has no political affiliations. It cares not for either the republican or the democratic party as a party, but it advocates the measures which it believes to be for the upbuilding of the whole South without regard to which party favors or opposes them, and as Senator McLaurin stands for the measures which are regarded as essential to Southern advancement, it rejoices that he has taken this stand for freedom of thought and freedom of speech uncontrolled by the party lash. If this freedom cannot be had in the democratic party, and men cannot vote according to their convictions, then freedom will be found somewhere else, and the men who are making the South to blossom once more will turn elsewhere for it.

### The Struggle Between Coal and Oil.

The first shot fired in the coming struggle between coal and the Texas oil as fuel is a marked reduction in freight rates on Alabama coal to Mobile, New Orleans and other places. The Louisville & Nashville has reduced its rate of \$1.75 to Mobile on coal for local consumption to \$1.10, and corresponding reductions have been made to other places. Temporarily this may hurt the railroads, but eventually they will be in shape to haul coal as cheaply as the Chesapeake & Ohio does, and they will be greatly benefited by the development of business created by low cost of fuel. The Texas oil supply is a factor with which the world must now reckon, for the striking of a gusher twenty miles from Beaumont practically proves that the field is of vast extent, and that it is capable of affecting the industries not only of this continent, but of the world. The oil discovery is an epoch-making event, and it should be a matter of universal rejoicing throughout the South that it is in this section that it has been found. Its influence upon the whole South is beyond calculation. And the vast coal fields of China, for which European nations are playing the world's greatest game of diplomacy, may prove to be of less importance in the question of international supremacy than this Texas discovery. But the finding of oil in Texas will stimulate a search for it all over the South, and new sources of wealth undreamed of now will be found as a result of such investigations.

### Politics That Pays.

This is said to be the dull season in party politics. Opinions may differ about that. It is, however, by no means a dull season in the industrial politics in which Mr. Edgar Wilson, the

Jackson correspondent of the New Orleans Picayune, is leading in Mississippi. His latest suggestion is as follows:

More railroads and better dirt roads; more mills and factories; more people with money and muscle and courage; more corn and wheat and cereals. This is a platform on which all patriotic Mississippians are standing.

#### The Southern Farm Magazine.

Increasing attention being given to the condition of the farming classes in this country, their blessings and their drawbacks, in comparison with town dwellers, and the means whereby the happiness of both classes may be enhanced, makes particularly timely the leading article in the June issue of the Southern Farm Magazine on women in the farm home. The writer, Mrs. M. F. Merriam, approaches the subject in most sympathetic mood, and handles it from the standpoint of experience, observation and sensible thought. She compares the women on the farm with the women in the city, pictures the daily life of both and leaves the reader under conviction that the country is, all things considered, to be the better desired by women. Other articles include a study of the changes in the population of the United States during the past ten years, with special reference to the changes in density, and showing that the South made the best-balanced increase in population as between city and county, while pointing to the development of industrial centers as a thing to be desired there; a sketch by S. L. Cary of the revolution in rice culture wrought by irrigation in Louisiana; some hints about raising pecans, by C. B. Smith; suggestions for tobacco growers, by Col. J. B. Killebrew; a study of the effect on the water supply of forest reservations, and a variety of other general articles of special interest to farmers or dwellers in rural communities. The special departments of the Magazine are full of original and selected matter for the family.

The Southern Farm Magazine is published monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Price \$1 a year.

#### A Strong Commendation.

Kindrick, Grayson Co., Va., May 18.  
Editor Manufacturers' Record:

I notice with great interest and satisfaction an article in a recent number of the Manufacturers' Record by Mr. C. F. Z. Caracristi on the Southern copper belt. About 1889-90 Mr. Caracristi made a thorough investigation of the minerals of Western North Carolina and Southwestern Virginia, and then predicted that this section would in the near future become the mining and manufacturing center of the country. The recent purchase by the Pennsylvania Steel Co. of the famous Ballou magnetic iron ores and the extension of the Norfolk & Western to these ores, as stated in a recent number of the Manufacturers' Record, shows the soundness of his predictions. Besides the Norfolk & Western, the Mount Rogers & Eastern and other railroads are being pushed into this section.

In justice to Mr. Caracristi I will say that he has, by his accurate reports, done more to bring to the attention of capitalists the unlimited resources of this section than anyone else. I have had sufficient contact with him to know that his reports can always be implicitly relied upon.

J. D. PERKINS.

The Meridian Lumber Co. of Meridian, Texas, was chartered last week, with a capital stock of \$9999. The incorporators are S. H. Lumpkin, John L. Meyers, A. A. Lumpkin and Fred Meyers.

## THE PRESENT STATUS OF THE BEAUMONT OIL FIELD.

By Robert T. Hill, Geologist of United States Geological Survey.

[Written for the Manufacturers' Record.]

Since the tremendous excitement which has prevailed at Beaumont since January 10, when Capt. A. F. Lucas discovered his famous oil gusher, comparatively little has been done to actually develop oil at Beaumont beyond the immediate vicinity of Spindletop Hill. Upon that small piece of ground, however, over ten flowing oil wells have been struck up to date. In every direction around Beaumont derricks may be seen, but these, for the present at least, are partly for advertising purposes, being in many cases erected by stock-floating companies, and which have for the basis of the statement in their prospectus "a derrick has been erected, and machinery will soon be upon the ground." One of the first experiments in the neighborhood within a mile and a-half of Beaumont developed a duster, and not until then did the tumultuous craze in stock promoting receive a sudden check. Today the situation at Beaumont is this: Land within the "proven ground" cannot be purchased for \$75,000 cash an acre. Other land within a mile of it cannot be sold at all.

While the influence of the Stribling duster to the east and the suspected Kelly duster to the West of Spindletop have really been beneficial to the Beaumont oil situation in checking the wild speculation, and in many cases the robbery which was being perpetrated, these dusters by no means demonstrate the absence of oil elsewhere than upon Spindletop Hill, for all the geological conditions and in places surface indications are such as to suggest that the Beaumont oil field has only been scratched, and that this field is but a part of a still greater one in which oil wells may be found from Southern Louisiana to where the Rocky mountains, by running into the sea, terminate the great coastal plain in the State of Tamaulipas, Mexico. While the public is frenzied over Beaumont, those who have had intelligence to realize the geological and surface conditions have been quietly and rapidly taking leases throughout this great district, and in many cases are sinking wells, and even as I write here I learn have in some cases been successful.

In view of these facts, the writer thinks it but wise to make a few statements concerning the geological conditions which control the occurrence of oil within the trans-Mississippi coastal plain, which conditions, although exceedingly simple, seem beyond the capacity of many to comprehend, and which differ both in geologic horizon and structure from any other oil fields in the United States.

It is my opinion that the Beaumont oil comes entirely from the eocene and neocene tertiary strata, which have an aggregate thickness of 2000 feet or more and outcrop the entire distance across the State from Red river to the Rio Grande, in the region of country known as the East Texas timber belt. These strata dip coastward beneath the coast prairies at a rate—as yet undetermined—of from five to fifteen feet per mile, where they are embedded (overlain) by from nothing to 1500 feet of later sediments of pleistocene age.

Many fragmentary geological observations have been made upon the tertiary strata of Texas, but no adequate nomenclature of classification has as yet been arrived at. These strata have largely been of the paleontological nature except in the instances of the State geological survey of Texas, in the volumes of which may be found many useful descriptions representing the progressive stages in the

attempt to map and delineate the formations. Many of the researches given the formations were to ascertain the value of the secondary iron ores, green sands or fertilizers, and the utilization of the great beds of lignite for fuel. These strata consist of vast beds of sand, lignite and bituminous clay, with little or no indurated rock. They have been known to be bituminous ever since the first settlement of the region. Springs and wells, in which a little petroleum occurred, have been known in East Texas for fifty years, and a dozen years or more ago oil wells of commercial value were drilled in Nacogdoches county, north of Beaumont. But no geologist realized the importance of this as a great oil-bearing formation, nor worked out the simple deduction that the oil would gravitate coastward down the dip, and that in that direction of the deeper embed the conditions were favorable for great accumulation of oil under high hydrostatic pressure. Furthermore, there are simple chemical conditions in the field which are novel to all previous experiences. Some able geologists, such as Professor Harris of Cornell, are still insisting on the oil as coming from the cretaceous strata; others talk of "synclines" and "anticlines" in this region, which is absolutely monoclinical, while "old oil men" from all over the world are looking for the Trenton limestone or the "salt water" and other conditions of the fields from which they came. The Beaumont oil in the tertiary strata seems as astonishing to those geologists who study nature entirely by precedent as did the discovery of coal in the Rocky mountain cretaceous to their predecessors, who thought all coal was carboniferous.

The strata of the greater oil field of the trans-Mississippi coastal plain present two important phases—the outcrop and the embed. It is in the outcrop in the timber belt that oil is seen to be actually oozing from the strata or struck in shallow wells, but the copious oil wells will all be derived from the embed beneath the coastal prairies.

Since the discovery of the Lucas well above the embedded tertiary strata, the occurrences of oil in the outcropping region to the interiorward are attracting revived interest; hence attention is being called to the occurrence of oil in the region of the outcropping in nearly every county from Red river to the Rio Grande.

Daily reports of oil discoveries are received from such counties as Hidalgo, Starr, Zapata, Wilson, Gonzales, Caldwell, Burleson, Leon, Henderson, Grimes, Tyler, etc., in all of which a little oil is found. If the outcrop of the tertiary is so generally impregnated across the entire State, and these strata uniformly dip coastward, as they do, and if the depth of the wells at Beaumont correspond in distance to the depth where the tertiary strata should be by their dip, it seems to the writer that these strata must be considered the source of the oil, at least until the preclusion of the entire hypothesis of alleged synclines. Furthermore, in my opinion, the marine tertiary formations of the southwestern coastal plain, owing to the abundance of bituminous matter contained by them, both vegetal (lignite) and animal, is one of the most extensive bituminous producing formations imaginable, and that the great quantities of iron pyrites they contain may aid in an explanation of the sulphurated hydrogen which come out of the Beaumont wells in such great quantities.

Granting that the geological source of

oil and sulphurated hydrogen gases of the Beaumont oil is derived from the tertiary formations, what evidence have we for supposing that other great producing areas like Spindletop may exist elsewhere throughout the Texas coastal plain? A ready answer to this question is the fact that the outcrop even along the Rio Grande is very bituminous, and indicates as good a source of material for supplying the deeply embedded reservoirs as north of Beaumont.

While the tertiary strata beneath the coastal plain, as described, are extremely bituminous, this does not indicate that oil will be found wherever a drill hole may penetrate the embed. On the contrary, owing to the very nature of the rock sheets, which are in irregular unconsolidated beds of sand and clay, pervious at one spot and impervious at another, it is exceedingly improbable that the oil should be uniformly distributed within the region of the embed, but, on the contrary, is apt to be located in greater quantities and in more favorable places. In my opinion, nothing but experimentation, as in other fields, will locate the actual oil. Furthermore, in the Beaumont oil fields there are certain accessory chemical conditions and associations which have been taken account of by the practical oil men, which are worthy of serious study before receiving the final rejection of theorists. These conditions, called "surface indications," as followed by the oil men, are as follows:

1. The oil is accompanied by the great quantities of sulphate and hydrogen gas.
2. The strata above the areas where there is great oil saturation, being of an unconsolidated nature, in many cases permit the sulphurated hydrogen gas to percolate upwards until it reaches the surface, producing a set phenomena as follows: Gas bubbles in pools of water; sour or acid water acidulated by the gases; the deposition of small particles of sulphur by sublimation at the surface in porous strata beneath the surface.

Where such "sulphurated hydrogen geyers," "sour lakes," sulphur deposits, etc., occur there may easily be a slight hill, probably resulting from induration of the strata, thereby preserving it from degradation. The most eminent man in connection with the developments of the Beaumont oil field holds that these undulations or hills are also upheaved by the gas pressure. I am prepared to add that he has demonstrated their apparent correctness in one notable instance (Spindletop), but my credulity will not permit me to accept the upheaval theory.

The ring of dusters, which is gradually encircling Spindletop Hill where such signs were found, is giving the discoverer of the Beaumont oil considerable cause for faith in his "signs." Spindletop Hill is only one of the many sour water gas geysers in the Texas coastal plain. They commence on the prairie Mamom, in Louisiana, and are found at several points southwest of Beaumont toward the Rio Grande, notably at Dumond Mound, Brazoria county, and other places. Up to date the many oil investigators, especially the Guffey Company, have secured leases on all such places, and are quietly erecting their derricks and drilling for the oil, and whether the "sour water" "gas geyser" theory is correct will soon be demonstrated at other places than Spindletop Hill; in fact, as I write this the discovery of a strongly flowing well is announced near Sour Lake, where Captain Lucas has again proven his theories as to "indications."

Finally, a word for the benefit of investigators in the oil field. The public should be aware of all prospectuses of companies bearing assertions that oil had been located upon their land by government or State geologists. Such assertions are



fraudulent, as neither the United States government or the State of Texas has ever issued any maps pertaining to the location of oil lands in this portion of Texas. Furthermore, the law prohibits such men from giving mineral opinions to private parties. The only State geologist in Texas having the right to use the name of State geologist is Prof. W. B. Phillips of the University of Texas, who is at the head of the only geological investigation conducted by that State, and no government report upon the Beaumont oil field is yet published, notwithstanding the fact that the press has announced such a report as coming from the writer. Mr. Geo. I. Adams of the United States Geological Survey is preparing a report, which will embrace his own observations with the combined efforts of the co-workers upon that organization, and this paper will be the first official utterance of the United States Survey.

#### News from the Oil Field.

[Special Cor. Manufacturers' Record.]  
Beaumont, Texas, May 25.

No outside wells having yet come in, the attitude of speculators continues to be that of waiting. The Kelly well is concluded by the general public to be dry. Another well close by in the same locality is also dry, having the effect to convince the speculative interest that the oil vein or lake does not extend to that region. There will be further boring done, however, to determine this point, but the speculators will probably leave that particular section alone. Interest now centers in the Texas & Pacific well, in the Iowa Colony tract, about half-way between Beaumont and the oil field. It has shown good "signs" in the way of gas and flowing of oil in small quantities with the ejected water. Beyond question the investing interest is somewhat disappointed that no outside well has yet been brought in. It was anticipated that by this time at least one outside well in some section would have burst forth in gorgeous display. The fact that such has not yet happened does not necessarily mean it will not occur, but shows that patience, time and perseverance will be necessary in defining the limits of the field.

The Heywood Oil Co. brought in its well No. 2 this morning. This well is on block 23, Spindletop Heights, owned by the Higgins Oil Co., and leased to the former concern. It is in the proven field, and therefore has had no special effect on the market. This company also owns a lease on two other Spindletop blocks adjoining the one on which its well No. 2 is located, and on one of which it already has a well. This company now has more gushers than any company in the field excepting Guffey, and is getting ready to market its oil. Indications point that its course of procedure will be similar to that of the Lone Star & Crescent, the Higgins Oil Co. and the J. M. Guffey Company, all of which intend to market their own oil, build tanks and pipe lines, etc. Work on one tank is under way, and work on an additional one is soon to begin. This well is the first eight-inch well in the field, and, according to mathematics, should be the biggest producer. It is claimed to be of large capacity.

Several of the wells are temporarily stopped because of accidents, the most common one being the twisting off of the pipe, which has happened to two or three recently.

Mr. E. G. Schlieder, president of the Lone Star & Crescent Oil Co., this week closed contracts with Messrs. Kountz Bros. of New York, principal owners of wharf front at Sabine, for space and terminal facilities, for the erection of tanks. The contract has been let for five large

steel tanks, three to be erected at Sabine, one at the wells and one in Beaumont. Total capacity will be about 150,000 barrels. There will be a pipe line made of six-inch pipe constructed at once to Sabine.

Mr. C. R. Cummings of Houston, member of the largest firm of lumber exporters in this State, and who do great business with Germany in yellow pine, oak, ash, hickory, etc., was in the city the present week. He desired prices on a cargo of oil to cable the other side in response to enquiries received from there as the result of several samples sent by him of the oil. This gentleman has a wide acquaintance with German importing houses, and is ready to engage in any sort of exporting business, and it is probable he can be largely instrumental in working up a good trade with Germany for some of the private oil companies.

The filing of suits still continues, and litigation is increasing every day. The last important suit entered is that by Mrs. Snow of California, who claims to be the surviving wife of Andrew Veatch, son of the patentee of the Veatch league, on which are situated the gushers. She claims a one-sixth interest.

Stock speculation has practically ceased. The price of stock in a great many of the oil companies, which ascended from fifty cents per share to one dollar for no tangible reason, has descended to fifty cents again. Most of the small holders are anxious to sell, but buyers are not numerous.

There is not such difficulty in procuring rooms and places to eat as was experienced some time ago, and the hotels are almost able to handle the crowds that are here now. The boom has disappeared for the present, but its disappearance is of a temporary nature, for the first news of the bringing in of an outside well will start such an era of speculation here as has never yet been seen in this country. Everyone is waiting, but are on the "qui vive."

The two new banks have opened for business, and seem to be making a good start. They are named the American National Bank and the Citizens' National Bank, the latter being the one that paid a barber over \$8000 for two years of an unexpired lease.

#### Santa Fe May Use Oil.

A dispatch from Galveston says that President E. P. Ripley of the Gulf, Colorado & Santa Fe system states that this company expects to use oil for locomotive fuel as soon as practicable. The Santa Fe has been burning oil in California, and, according to Mr. Ripley, has found it to be much cheaper than coal.

#### The Alabama Iron Situation.

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., May 28.

The iron market the past week was a sagging one, and "dry as powdered dust." Sandwiched in between the small orders that came were a few good inquiries, but they resulted in no business. There are a few who are disposed to hold their prices at "top notch," but these few are well filled in order-books for future deliveries, and on this account are not disposed to concessions. But there are those who have been "keeping close to shore" who are anxious to meet the market and accept current values. This makes it difficult to quote actual values. Some hold prices on a basis of \$11 to \$11.25 for No. 2 foundry, but everybody familiar with the market knows that No. 2 foundry can be bought below \$11. Just what figures at which it can be bought depends upon circumstances. It is so hard to get the figures of actual transactions that exact values are difficult to record. But in some cases it has come to the knowledge

of your correspondent that \$10.50 for No. 2 foundry was seriously considered, and he believes was accepted. The fact is the weak condition of the market is acknowledged, and in certain cases it is accepted as one of the ills that must be borne.

There is a belief in well-posted quarters that certain interests who buy largely must come in by the middle of June and take important lots of iron, and it is this belief that induced certain interests to uphold values. The sales for the past week do not cover current output, and when that is the case the verdict is "a dull demand."

While this state of affairs exists for iron, the demand for steel continues fine, and all the business that can be comfortably cared for is easily obtainable. The basis of prices is around \$23 for billets. The public press announces that plans are being drawn for an enlargement of the mill, looking to an increased capacity, doubling at least the present output. But officials in charge refuse to confirm this report. It is doubtless true, as the business has increased so rapidly and satisfactorily that an increased capacity is necessary to keep pace with the increasing business.

Mention was made last week of a large contract made with the Mexican Railroad for coal. Close on the heels of this announcement comes the report that the Louisville & Nashville Railroad has made a cut in freight on coal to Pensacola, Mobile and New Orleans. There has been heretofore a uniform rate of \$1.75 per ton to all three cities. The change in the tariff now makes it \$1.25 to New Orleans and \$1.10 each to Pensacola and Mobile. This is the lowest rate ever given. The cause of it is the prospective foothold of the fuel oil from the Texas oil fields. Experiments have in some instances resulted in the substitution of this fuel oil for other fuel, and almost a craze concerning it was developing. A heroic remedy was necessary to offset it, and a deep incision in railroad rates was the result. The rate leaves no margin of profit on the haul, but it temporarily, if not permanently, saves the coal interests of the district. It puts Alabama coal on the Gulf and contiguous markets at a lower value than Pittsburg can possibly make, and inaugurates the fight squarely between fuel oil and coal. Many of our coal operators think it has saved the situation, which was rapidly growing worse. Since the development of the Texas oil field our small operators have had greater difficulty to place output, and time of mining was materially shortened. We can now put coal into New Orleans at or about \$2.25 per ton, and its retention is simply a question in economics.

So far the labor strikes inaugurated North have had but little effect here. The fraternity of plumbers are engaged at present on one, but it is considered of no moment and without influence on the other trades.

The Southern Car and Foundry Works is preparing for active operations in the erection of its buildings. The grounds have been staked off and grading commenced. In thirty days operations on buildings will commence. Only forty acres of the sixty acquired will be utilized at the outset. When in full operation 1000 operatives will be employed, and the monthly pay-roll will be \$60,000. The daily output will be twenty cars.

Confirmatory of the reports in these letters of continuous prosperity, the tax assessments of this county for 1901 show an increase of over \$4,000,000. The total assessment is over \$40,000,000. Our banks never before carried such a large line of deposits. Every line of industrial pursuits is running full handed, and there

is no sign yet of cessation of demand for the various products. J. M. K.

#### AS A RAILROAD CENTER.

Increasing Importance of Fort Smith, Arkansas.

[Special Cor. Manufacturers' Record.]

Fort Smith, Ark., May 27.

This part of the State is experiencing a very rapid commercial and industrial development, which is perceptible in a marked degree in new railroads and extensions of those already here. To our immediate north the St. Louis & San Francisco Railroad has just finished an extension from Eureka Springs to Harrison, Boone county, and it will doubtless be built further east into the North Arkansas mineral belt. The same company is about to begin an extension from Chadwick, Mo., south to the same wonderful lead and zinc fields. A line from Fayetteville is under construction to the West, and is intended to reach Oklahoma. There are strong indications that the partially-built line from Cape Girardeau, Mo., westward is now about to be constructed to the same mineral belt of this State, and from there to this city, which would bring the mineral to our great coal field and give Fort Smith a third line to St. Louis, and make the distance by that route from eighty to one hundred miles shorter. South of this city the Missouri Pacific Railroad is extending a line from Pike City, Ark., northward to Greenwood, in this county, which is the present terminus of that system from here southward, and gives Fort Smith a direct line to New Orleans. The construction of the Arkansas Western is being pushed to completion. It is a short line from Howe, I. T., to Waldron, Ark., and is being built by Col. C. C. Godman. The line runs through a fine belt of timber and coal, and connects Fort Smith with Waldron, Ark. The surveying of the Fort Smith & Western Railroad is progressing as fast as four surveying parties in the field can do so. Work at this end of the line is to begin within thirty days. Mr. George Hayden of Ishpeming, Mich., is at the head of the enterprise. The road is intended to tap the Missouri, Kansas & Texas Railroad some eighty miles west of here, and from that point to some point on the Santa Fe Railroad about 125 miles further west. The main offices and shops will be at Fort Smith. The company owns a number of coal leases in the Choctaw Nation. The Shawnee, Oklahoma & Missouri Coal & Railroad Co., Mr. H. P. Dexter, president, has completed its survey to Fort Smith. This is a line from Shawnee, O. T., running directly east. Near Okmulgee, I. T., the line forks, one going to Muskogee, I. T., and the other to this city. The same company expects to build a line from Shawnee to Guthrie, Okla., and from Shawnee to Denison, Texas.

Among new industries Fort Smith is about to add a large shoe factory of 800 pairs a day capacity. Mr. David Speer of this city is president of the plant. The prospect for a 5000-spindle cotton mill is very flattering. The necessary capital stock of \$100,000 is now being made up. The Ballman Furniture Co. has added an additional industry to its plant, i. e., a large mattress and excelsior factory, and is now taking steps to include an upholstering addition. Business is excellent in all lines. Factories as well as wholesale houses are unable to fill their orders. The \$16,000,000 volume of business for 1900 will be satisfactorily eclipsed by 1901. The figures for the first quarter of this year are far ahead of the first quarter of last year.

The oil bonanza of Beaumont, Texas,

has started our people into boring into mother earth. A company has been organized which is now drilling at Mansfield, in this county, with excellent prospects of striking a gusher. The geologist, John Branner, locates oil at that point.

S. A. WILLIAMS,  
Secretary Commercial League.

#### A South Carolina Manufacturer on the Issues.

Jonesville, S. C., May 27.

Editor Manufacturers' Record:

I note with pleasure your remarks in support of Hon. John L. McLaurin, as contained in the Manufacturers' Record from time to time. Matters took a very interesting turn last Saturday at Gaffney. Personally, I am strongly in sympathy with Mr. McLaurin, and if the people can be brought to think, he will be elected. However, we must take into consideration that South Carolina voters do not always think, as has been fittingly illustrated in this State in past ten years. As I see the democratic party today, there is absolutely nothing in it but a lot of demagogues, who are willing to say most anything to be elected. Mr. McLaurin, I think, is sincere in his position, and is willing to stand for what he considers best for his people, whether they think so or not, and regardless of how they may vote. What we want, as I see it, is business (sales for our cotton-factory products), which will help every line of business. Being a manufacturer, merchant and farmer, I certainly feel that I am in position to speak intelligently. Please do not understand me to mean that we want business at expense of right principle, but we can get it fairly and honestly if we put forth the effort and can eliminate these old democratic fossils. With best wishes for the Manufacturers' Record, I am,

Yours truly,

J. J. LITTLEJOHN.

#### Louisville Developments.

In 1900 more than 1000 firms and corporations began business at Louisville, Ky., and the aggregate capital of the new enterprises begun during the past two years amounted to \$3,662,000. Among the largest companies, nearly every one of which has built its factory, are those engaged in making clothing, shirts, veneering, bolts, varnish and paints and manufacturing tobacco. During the first four months of 1901 building permits representing an investment of more than \$600,000 were issued. The Central Stock-Yards Co. was incorporated a few days ago, with a capital of \$500,000, and will spend nearly \$250,000 on its plant in South Louisville. A new telephone company is in process of organization, and has contracted for a \$750,000 plant. The Courier-Journal, which is authority for these statements, also expects that the plow trust will expend several hundred thousand dollars in a Louisville factory. It says that the Mengel Box Factory will erect a plant costing \$100,000; that the Chesapeake & Ohio Railway, with the Big Four Company, will spend \$275,000 in improving its terminal facilities; that the Louisville & Nashville Railroad during the next few years will build new shops, new roundhouses, new warehouses, and that the Illinois Central will extend its station in the city, while the Southern Railway has spent already much money there in improving its terminal facilities.

The Columbus (Ga.) Power Co. is ready to make contracts with manufacturers of Columbus for the delivery of electric-power to the extent of 1000 to 1500 horsepower as soon as a sufficient number of contracts has been made to justify the cost of transmission from the Chattahoochee river.

## RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

#### "Outlook Most Gratifying."

In a recent interview relative to the indications for Southern trade Mr. W. W. Finley, vice-president of the Southern Railway, is quoted as follows:

"Conditions in the South are very favorable just now from a railway point of view. Tonnage is very good, and there is a decided picking up in all branches of traffic. This is particularly noticeable in cotton goods, and I gather from our reports that the Oriental trade, which suffered by reason of the Chinese troubles, is improving materially. Our local business is very good, and the new industries that are starting up along our line are helping to swell our tonnage. The industrial department of the Southern Railway is accomplishing much, and the new sidings that we have constructed are considerable and are constantly increasing. Our passenger business is also very satisfactory. The rate situation in the Southeast is very good, and we are peacefully adjusting whatever differences exist. The very favorable conditions in the South make the outlook most gratifying, and I am satisfied that they are going to last for some time. The Southern Railway is just now engaged in a very important work—that of grade revision—following its policy of improving the property, and these improvements will, of course, be made out of the earnings. We are working along safe lines, and the outlook, generally speaking, is very encouraging."

#### St. Louis Southwestern Extensions.

A party of surveyors reported to be working in the interest of the St. Louis Southwestern Railroad Co. are laying out a route between Memphis and a point on the main line of the Southwestern, it is understood, with the view to building an air line between St. Louis and Memphis. According to a dispatch from St. Louis, the company has had the extension under consideration for some time, and has at last reached a decision.

It is reported that the Southwestern has secured control of what is known as the Dallas, Fort Worth & Gulf Railway, which comprises a belt line in the suburbs of Dallas; also right of way between Dallas and Fort Worth. It is understood that the step was taken with the view to constructing a direct line between the cities named and obtaining better terminal facilities at Dallas.

#### New Mileage in Georgia.

Two important railroad extensions will be completed in Georgia in the near future. The branch of the Macon, Dublin & Savannah from Dublin to Vidalia, recently referred to in the Manufacturers' Record, is now under construction, the contract having been let to Messrs. W. J. Oliver & Co. of Langley, S. C. The estimated distance is forty miles, and it is to be ready for operation within four months.

A dispatch from Waycross, Ga., is to the effect that the Waycross Air Line Railway Co. has determined to build the proposed extension from Fitzgerald to Cordele, Ga., at once, and that contracts will be let in the near future. The estimated distance is thirty-five miles, and surveys are now being made.

#### Washington-Baltimore Line.

The promoters of the electric railroad between Baltimore, Washington and Annapolis have formed a permanent organization by electing W. H. Lamprecht of

Cleveland, president; James Christy of Akron, Ohio, vice-president, and Otto Miller of Cleveland, secretary and treasurer. In a letter to the Manufacturers' Record Mr. Lamprecht, a member of the firm of Lamprecht Bros. Co. of Cleveland, stated several weeks ago that it was expected to build the line referred to during the present year. Surveys, it is understood, are now being completed, and a site for a power-house has been selected. Baltimore directors in the company include William A. Marbury and Carroll T. Bond.

#### Plant System Extension.

The Plant Railway & Steamship Co. has decided to add to its mileage in Georgia by constructing a direct line between Jesup and Folkston, a distance of about sixty miles. By this the Plant system will reduce the mileage between Savannah and Jacksonville to 152, twenty miles less than by the present route, while the distance between New York and Jacksonville, at present 1014 miles by the Plant system, will be shortened to 994. According to a statement made by Mr. R. G. Erwin, president of the company, the new line will be completed within the next six months.

#### Dallas to Sabine Pass.

The extension of the Southern Pacific Railway between Athens and its Sabine & East Texas division has been completed to Nacogdoches, leaving a gap of sixty-four miles yet to be constructed. The work has included the rebuilding of the Texas Trunk Railroad between Dallas and Athens and the completion of fifty-one miles of additional track. The new route will form a direct line between Dallas and Sabine Pass.

#### Work on Tennessee Central.

In a letter to the Manufacturers' Record Mr. W. B. Doddridge, vice-president of the Tennessee Central Railway Co., writes that the terminals at Nashville are now under construction, and that contracts have been let for the section of the road to be built between Nashville and Lebanon, Tenn. He states that the plans of the company have not been definitely determined beyond this point.

#### Railroad Notes.

It is announced that negotiations have been concluded by which the Choctaw, Oklahoma & Gulf Railway Co. secures control of the Hot Springs Railroad, in operation between Malvern and Hot Springs, Ark., a distance of twenty-two miles. It is understood that the Choctaw Company will build an extension from Little Rock to connect with it in the near future.

The stockholders of the Savannah, Florida & Western Railway Co. will meet June 20 to consider an increase in the common stock to \$12,500,000, also an issue of the same amount of preferred stock. This is the plan decided upon by the directors to finance the proposed merging of the various corporations operating in what is known as the Plant system of railroads into one company.

In a letter to the Manufacturers' Record Mr. E. B. Freeman, general manager of the Georgetown & Western Railroad Co., writes that the company has secured a tract of land on the ocean front on Pawley's Island, and is building a road three miles long from Hagley, S. C., to the island. This road will connect with a steamer line between Hagley and Georgetown, S. C. All of the necessary material has been purchased, and it is expected to have the road in operation in a few weeks.

## FOREIGN TRADE.

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

#### Favor West Virginia Coal.

In a recent issue of the Manufacturers' Record reference was made to a report of the United States consul at Messina, Italy, on the comparative merits of West Virginia and Welsh coal. Messrs. Peirce & Becker of Messina, extensive vessel owners, have been making a series of tests of the Pocahontas and fuel obtained from the Cardiff mines. The detailed statement of the firm on the result of the tests is as follows:

"We have been using Pocahontas for years for our own steamers, which, we should add, have Howden's forced draft, and consequently fire bars rather close together. We should call it, taking it all round, fully equal to the very best Cardiff coal that we have ever had the opportunity of using, and we would say that on several occasions we have specially laid ourselves out to get the very best Cardiff coal, without sticking at the price, as we are convinced that the best coal is the cheapest in the long run. But we have found Welsh coal to vary considerably, the price and the brand being an unreliable guaranty as to quality and results, while Pocahontas coal, although it is only run of mine and not screened, is practically always the same quality. For our part, we consider it to be, on the whole, a stronger and cleaner coal than such Welsh, even of the highest-priced brands, as is accessible to the general public."

#### For West Indian Trade.

Mr. E. L. Tessier, Jr., manager of the exhibits and concessions department of the South Carolina, Interstate & West Indian Exposition Co., has written to the manufacturers of the country extending a cordial invitation to make an exhibit of their respective lines of manufactures:

"The West Indian exhibit, the largest ever attempted, will, I think, be of special interest to you. I am getting together, through our agents in the different islands, a very complete line of samples of the goods sold there by European manufacturers, and also exhibits of the different packages that seem to be preferred by the various trades. This has, I believe, never been attempted before on as comprehensive a scale as we contemplate. Each sample of the European goods brought from these islands will be marked with the wholesale and retail prices at which it is sold in the West Indies, thus giving our manufacturers an object-lesson not only the prices, but also the articles with which they have to compete in this new territory, which is such a promising field for our export trade."

#### Larger Ships for Galveston.

Some interesting statistics have recently been prepared by J. Merro, agent of the Gulf Transport Line of Galveston, Texas, which indicate the expansion of the shipping interests of this port in the last ten years. In 1891 the registered tonnage of the average steamer loading at Galveston was 1314. Since that time it has increased to 2226, ranging from 1788 in 1896 to the figures quoted in 1900. The improvements to Galveston harbor, allowing the entry of large steamships, is responsible for the increase.

The dry-kiln and contents of the Louisville Vegeer Mills at Louisville, Ky., were destroyed by fire last week. The damage is estimated at \$10,000, with insurance about 80 per cent. of that amount.



## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

## North Carolina's Textile School.

Growing industrial development in the South is stimulating interest in industrial education to a remarkable extent. Almost every Southern State has expended large sums in the establishment of colleges of agriculture and mechanic arts. The agricultural departments of these colleges were early brought to high efficiency. The departments bearing on manufactures have been constantly extended. One of the latest of these extensions of educational facilities is a textile department. The States of North Carolina, South Carolina, Georgia and Mississippi have made appropriations for the support and maintenance of textile schools. We exhibit by a cut the front elevation of the new textile building being erected by the State of North Carolina at the Agricultural and Mechanical College, Raleigh. The plans for the new building were made by the D. A. Tompkins Co. of Charlotte.

The textile department at the college has been established and in operation for

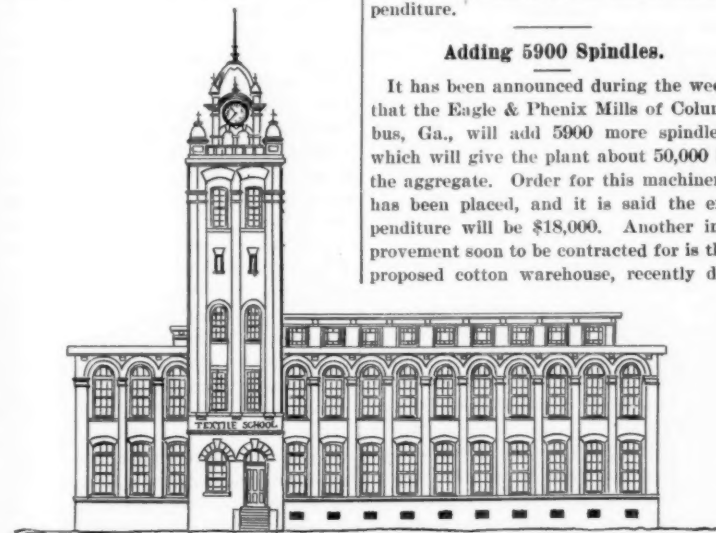
tion to main building will be two stories high, 60x147 feet, with dyehouse 35x60 feet, and engine and boiler house. The new machinery will include 100 knitting machines, thirty loopers, twenty ribbers, five hemmers, etc.; also hydraulic press of 1000 dozen capacity, 12x36 Corliss engine, 100-horse-power boiler, dyeing equipment for 1500 pounds daily, and dynamo of 300 lights. Estimates on the machinery are now invited from manufacturers. The improved mill, when completed, will have daily capacity for 800 dozen pairs of half-hose, from the coarsest to the finest article. The operatives will number 200.

## Laurel (Miss.) Cotton Mills to Double.

The directors of the Laurel (Miss.) Cotton Mills have decided to double the plant. Arrangements have been made for the required machinery, and this equipment will be shipped as soon as possible. The mill at present has 5000 spindles and 160 looms, so the enlargement will give a total of 10,000 spindles and 320 looms. There is also room in present building for 320 more looms, and this number can be put in. By running the spindles day and night the 640 looms could be supplied for weaving. About \$100,000 will be the expenditure.

## Adding 5900 Spindles.

It has been announced during the week that the Eagle & Phenix Mills of Columbus, Ga., will add 5900 more spindles, which will give the plant about 50,000 in the aggregate. Order for this machinery has been placed, and it is said the expenditure will be \$18,000. Another improvement soon to be contracted for is the proposed cotton warehouse, recently de-



FRONT ELEVATION OF TEXTILE BUILDING AT THE AGRICULTURAL AND MECHANICAL COLLEGE, RALEIGH, N. C.

some time, occupying such quarters as the college could spare. The department is in charge of Professor Wilson, under the general direction of Dr. Winston, president of the college.

The new building will give ample facilities as to room for recitations, lectures and floor space for machinery. The teaching is now both technical and practical. When the new building is completed the practical operations will be very much extended.

The appropriation by the State for the new building is \$20,000. The department will continue under the charge of Professor Wilson, with two assistants added. One of these will be a practical demonstrator of the machines and their operation, and the other will be a man well up in technical and practical features of dyeing.

It is the purpose of those most interested in these technical and practical schools to keep them fully apace with the actual developments of the State's resources.

## A \$25,000 Enlargement.

Arrangements have been completed for about \$25,000 worth of enlargements and improvements to the Jonesville Knitting Mills of Jonesville, S. C. The company has had plans prepared by Messrs. Ladshaw & Ladshaw of Spartanburg, S. C., and work is now in progress. The addi-

cided upon, for which plans and specifications are now being prepared. This structure will cost \$20,000.

## Textile Notes.

Messrs. Tillis & O'Neal of Enterprise, Ala., will build a cotton mill to cost probably \$125,000.

Newberry (S. C.) Cotton Mills will declare a semi-annual dividend of 4 per cent., payable July 1.

J. M. Wright and associates of Huntingdon, Tenn., propose forming a company for the erection of \$20,000 cotton factory.

P. H. Williams and the Riverside Land Co. are interested in the proposed \$50,000 stock company that has in view the erection of a silk mill at Elizabeth City, N. C.

John Rudisill Manufacturing Co., Lincolnton, N. C., has been organized to erect a 1500-spindle cotton factory, and will commence work on same about July 1. J. M. Roberts of Shelby, N. C., was elected secretary-treasurer.

It is rumored at Columbus, Ga., that the Bibb Manufacturing Co. of Macon will build in the former city a large cotton factory. The Bibb plant at Macon contains 44,500 spindles. The proposed new mill was talked of last year.

J. W. Halstead and others of Henderson, N. C., contemplate establishing a factory for the production of rope and

cordage. The parties now ask information concerning this branch of manufacturing, and prices on machinery necessary.

It is reported that the Southern Milling Co. has purchased property at Grayson, Va., and will locate thereon a large cotton factory. The construction of a dam to develop water-power is said to be a part of the project. According to rumors, J. P. Carrico of Grayson is representing the company.

The promoters of the cotton-mill company for St. Louis, Mo., recently mentioned, are now soliciting subscriptions to the capital of the company proposed. Prospects for success are very favorable. As soon as definite announcements can be made the St. Louis Commission Co. will be in a position to give details.

The board of government of the New England Cotton Manufacturers' Association has decided to hold the seventy-first meeting of the association at Niagara Falls, New York, September 25 and 26, in order that the members may have a convenient opportunity to visit the Pan-American Exposition at Buffalo.

Isaetta Mills of Augusta, Ga., was not bought by Messrs. Woodward, Baldwin & Co. of Baltimore and New York, as had been stated recently. The mills have applied for 1000 horse-power additional, and probably this will result in enlargements and resumption of operations. A correspondent states that Stewart Phinizy of Augusta purchased the plant.

The Mountain Island (N. C.) Manufacturing Co.'s cotton factory was damaged by the recent flood, and some machinery was washed away. The damaged portion will be rebuilt and the lost machinery will be replaced. The spinning and twisting departments resumed in a few days, the damage having been mainly to the weaving department.

## Cottonseed-Oil Notes.

The seed shed of the Hill City Oil Mills at Vicksburg was burned on the 21st inst. The plant is practically new, having been erected in 1899. The loss is estimated at \$10,750, with insurance \$4000.

The Florida Cotton Oil Co. of Chattanooga, Tenn., has been chartered, with a capital stock of \$100,000. The incorporators are G. N. Henson, W. F. Hutcheson, W. B. Riddell, J. L. Caldwell and others. The home office of the company will be at Chattanooga.

The deeds transferring the property of the Interstate Cotton Oil Mill at Augusta, Ga., to the Virginia-Carolina Chemical Co. were filed on the 24th inst. The price paid was said to be \$150,000. It is understood that the Interstate plant will be improved from time to time and the output greatly increased.

The Independent Cotton Oil Co. of Columbus, Ga., was incorporated last week, with a capital stock of \$100,000. It is stated that outside capital will be largely invested in the enterprise, the incorporators being James W. English, Jr., R. F. Maddox and Thomas R. Paine of Atlanta, Ga., and J. J. Parker of Ramsey, Mich.

Cottonseed products in Texas are lower, quotations ruling as follows: Prime crude oil, loose, 24½ to 25 cents, and prime summer-yellow oil, 28 to 29 cents; linters, per pound, 2 to 2¼ cents, all f. o. b. mill at Texas interior points, according to location; hulls, baled, \$5 per ton; cottonseed cake, \$19.75 to \$20.50, and cottonseed meal, \$20.50 to \$21 per ton delivered at Galveston.

The following are official quotations on cottonseed and cottonseed products as posted at the New Orleans Cotton Exchange on the 27th inst.: Prime refined

oil in barrels, 34½ cents per gallon; off refined oil in barrels, 33 cents per gallon; prime crude oil, loose, 28½ cents per gallon; prime cottonseed cake, \$24 to \$25 per ton of 2240 pounds; off do., nominal; prime cottonseed meal, \$24 per ton of 2240 pounds; off do., nominal; soap stock, loose, 1.07 cents per pound; linters, per pound, choice, 3¾ cents; A, 3½ cents; B, 3¼ cents; C, 3 cents; cottonseed in sacks delivered in New Orleans, \$15 per ton of 2000 pounds; in bulk delivered in New Orleans, \$14 per ton of 2000 pounds.

## Buffalo's Engine Exhibit.

The Lane & Bodley Company of Cincinnati, Ohio, has sent a circular-letter to exhibitors of engines at the Pan-American Exposition for the purpose of bringing about at once a change in the arrangements for the engine exhibit. It writes that the provision for such exhibits are entirely inadequate, and says:

"We believe that 99 per cent. or more of the visitors would spend a week on the grounds, and would leave without knowing there is an engine exhibit. The engines are down in a hole, and there is nothing to indicate that the hole exists, nor that it contains an engine exhibit. This hole is roofed over as low down as possible to clear the tops of the flywheels of the engines, and a few inadequate skylights are inserted. It is entirely boxed in, and when the weather gets warm will be a sweatbox in which we do not believe it will be possible for men to stay. We request that you immediately write to the exposition authorities and urge that the roof over the engine exhibit, which is building, and that the inner partitions of the machinery building be removed, so that visitors may look down upon the engines from the machinery building, and that suitable conspicuous access be provided to this subterranean exhibition space, and that conspicuous signs be placed in various parts of the machinery building calling attention to the fact that there is an exhibition of steam engines, notwithstanding appearances to the contrary."

## Waterway to the Gulf.

The work of improving the Lake Borgue canal in Louisiana is nearly completed, and it is expected to open the waterway for vessels on June 10. The canal furnishes an inside water route, with the Mississippi and Pearl rivers, between New Orleans and the southern coast of Mississippi, giving communication with Gulfport, Biloxi and Scranton. The route by way of the canal from New Orleans to Gulfport is sixty-two miles. The improvements consist in the construction of locks at several points and the dredging of the channel to a depth of twelve feet. It is stated that the company interested in the canal will establish a line of tugboats and barges between New Orleans and the towns mentioned. The work has been in charge of the Lake Borgue Canal Co., of which M. J. Sanders is president, and Edward Nathan, secretary and treasurer.

The New Orleans, Gulf & Navigation Co. has been organized to operate a vessel between New Orleans and Brownsville, Texas. The company will have a small steamship built purposely for the service, and is now receiving bids from marine constructors. Gustave Lehman of New Orleans is one of the principal parties interested.

The work of constructing the elevator to be built by the Illinois Central Railroad Co. at Stuyvesant Docks, New Orleans, has begun. The George B. Swift Company of Chicago has secured the contract for the structure, which will hold 1,500,000 bushels and cost about \$400,000.

## PHOSPHATES.

### Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., May 29.

The phosphate movement in the local market has been of moderate proportions during the past week. Receipts have been light, and the demand from fertilizer factories limited. Values rule nominally steady. Reports from mining sections in South Carolina continue to show up more favorably, and there is a renewal of activity among the various companies. Mining is now quite active around Beaufort and vicinity, and the market is taking on a stronger tone. Stocks of phosphate rock held by the Coosaw and other companies are being reduced, and shipments, both domestic and foreign, are expected to improve. In Florida the market for both land rock and pebble is moderately active, there being some foreign demand, and also numerous inquiries from domestic points. The market is very steady, and miners are not disposed to make concessions in order to effect sales. The Tennessee phosphate field is just now in fair condition for developing the industry, and miners are generally working their properties with considerable vigor. At Mt. Pleasant there is a good inquiry for rock for both domestic and foreign purposes, and holders are generally encouraged by the outlook. The shipments of rock from Mt. Pleasant for the four months ending April 30, 1901, amounted to 136,171 tons, of which 48,656 tons were for export and 87,515 tons for domestic use, while for the corresponding period last year the shipments amounted to 89,907 tons, or an increase over 1900 of about 46,164 tons. The market last week closed very steady, with values unchanged, and some demand for export. In the local market the only charter reported was the schooner Adele Thackera, 515 tons, from Charleston, S. C., to New York with phosphate at \$1.95.

### Fertilizer Ingredients.

During the past week there has been a good demand for ammoniates, and the market has ruled steady. Stocks in the West are not excessive, and holders are generally firm in their views. Sulphate of ammonia is firmer, both for spot and early shipments. Nitrate of soda is quiet and steady, with a moderate offering.

The following table represents the prices current at this date:

Sulphate of ammonia (gas).....	\$2 77½ @ 2 82½
Nitrate of soda, spot Balto.....	1 85 @ 1 90
N. York.....	1 85 @
Blood.....	2 25 @ 2 27½
Azotine (beef).....	2 35 @
Azotine (pork).....	2 35 @
Tankage (concentrated).....	2 17½ @ 2 20
Tankage (9 and 20).....	2 30 @ 106 2 35 & 10
Tankage (7 and 30).....	20 00 @ 21 00
Fish (dry).....	27 50 @ 30 00

### Phosphate and Fertilizer Notes.

The steamship S. T. Morgan cleared last week from Charleston, S. C., with 2036 tons of phosphate rock for Baltimore.

The Tennessee Phosphate Co. at Mt. Pleasant, Tenn., is now running on full time and working a full force of hands. Large shipments of rock are being made.

The British steamer Cluden cleared from Pensacola last week with 849 tons of Tennessee phosphate rock among her cargo, and the steamer Thomas Melville for Nantes with 2240 long tons of Tennessee rock, valued at \$11,200. Both vessels were cleared by the Gulf Transit Co.

The Italian steamship Lialto was loading last week at the Louisville & Nashville docks in Pensacola one of the largest cargoes of phosphate rock ever dispatched from that port. The Lialto will carry, when loaded, 5500 tons of Tennessee phosphate rock, consigned to parties in Leghorn.

The Empire Guano Co., incorporated under the laws of West Virginia, was chartered last week at Nashville, Tenn. The incorporators are A. C. Read, J. S. Campbell, John A. Bell, Hamilton Parks and W. D. Tharin. The capital stock of the company is placed at \$100,000. The company will manufacture fertilizer.

Mr. John Garrett, a well-known phosphate dealer at Mt. Pleasant, Tenn., is perfecting arrangements for a big display of Tennessee phosphate rock at the Pan-American Exposition at Buffalo. He has obtained concessions for prominent space in the mines and mineral building and to make an elaborate and striking display.

The Mutual Fertilizer Co. of Savannah, Ga., was chartered last week, with a capital of \$50,000, to be increased to \$500,000. The incorporators are Charles Ellis, Robert M. Butler, Henry D. Stevens, Charles G. Bell and Hunter, Pearce & Battey. The company will deal in all kinds of fertilizers and fertilizer material, and purchase and hold phosphate lands and waterways.

A large deposit of what is believed to be gray ochre was found last week on property owned by J. C. Sterchi near Knoxville, Tenn. The tract consists of forty acres. The deposit is said to underlie the entire tract. Mr. Sterchi will have the deposits tested at once, and if found to be marketable crushing and other machinery will be at once installed for active development.

The shipments of phosphate rock from Mt. Pleasant, Tenn., for the month of April, 1901, amounted to 29,172 tons, of which 11,006 tons were export and 18,166 domestic. The total shipments of rock from the Mt. Pleasant field for four months ending April 30 amounted to 136,171 tons, of which 48,656 tons were export and 87,515 domestic. For the twelve months in 1900 the shipments were 359,630 tons, of which 124,290 tons were export and 235,331 tons domestic.

### Industrial Growth of Columbus.

It is estimated that fully \$1,250,000 represents the value of buildings under construction at Columbus, Ga. New industries and enlargements of plants now in operation represent about \$1,000,000. They include additions to the Columbus Iron Works, the plant of the Golden Foundry & Machine Co., power-house for the Bibb Manufacturing Co. and additional machinery for the Eagle & Phenix Cotton Mills. The estimate does not include the mill recently erected at a cost of \$400,000 by the Columbus Manufacturing Co., nor a railroad depot which is to be built this year at a cost of \$35,000. Including these and other improvements, it is calculated that fully \$2,000,000 will represent the work to be completed during 1901.

### St. Louis to New Orleans.

The Manufacturers' Association of St. Louis has been instrumental in forming a company to operate a line of steamboats on the Mississippi river between St. Louis and New Orleans. It will be entitled the Merchants & Manufacturers' Packet Co., and will place in service four steamers, each of which will have a cargo capacity for about 1000 tons. L. D. Kingsland and Thomas L. Cannon of St. Louis are interested in the company.

The Nease & Levy Ship & Engine Building Co. of Philadelphia is constructing a steamer for the Galveston Pilots' Association which will be 112 feet in length and 23 feet beam. She will be utilized in place of sail pilot-boats for Galveston harbor, and is to be completed by September 1.

## LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### LUMBER MARKET REVIEWS.

#### Baltimore.

Office Manufacturers' Record,  
Baltimore, Md., May 29.

The inclement weather prevailing during the past week has restricted trade in the local lumber market, but withal the volume of business has been fair. The demand for lumber from the usual sources begins to show more favorable features as the season advances, and out-of-town dealers and various woodworking concerns throughout the North and Middle West are sending in numerous inquiries. The hardwood situation is improving in certain lines, and at milling sections in the Southwest there is considerable activity, the development of hardwood timber lands being unusually vigorous. Oak and ash in the local market are both very steady, with the demand good, coming principally from nearby towns. Poplar continues to show a favorable position, and prices are firm, with a fair demand from furniture dealers and for export. With regard to the foreign exports of hardwoods, the situation continues unchanged, and advices from the United Kingdom and Continent are not encouraging. Dealers on the other side are very conservative in their views, and the whole market abroad seems to be without much snap or vigor. The London Timber Trades Journal of the 18th inst., in reviewing the hardwood market, says: "There is nothing fresh to record since last week in the mahogany and hardwood trade. The tone of the market continues quiet, with a slow demand, and the business passing is only moderate at former sale rates. There have been no public sales, and in the private-contract trade small parcels of all descriptions are reported to have changed hands at current prices. There is still a great lack of animation in the retail trade, with only a hand-to-mouth demand, which just keeps the yards moving." Baltimore dealers in North Carolina pine report a fair movement for the week and a better demand from Northern sources for good grades. Receipts of North Carolina pine in the local market continue liberal, and considerable air-dried stock is selling at an improvement in prices. At milling sections in Eastern Virginia and North Carolina stocks show but slight accumulation.

#### Norfolk.

[From our own Correspondent.]  
Norfolk, Va., May 27.

In this section there has been a fair movement in nearly all departments of the lumber industry, and the outlook for a good June trade is somewhat more encouraging. Throughout the North Carolina pine belt the various saw-mill plants are generally running at their full capacity, having orders sufficient at the moment to prevent much accumulation of stock. Shipments of lumber have been liberal during the past week, both by rail and water. The demand for North Carolina pine is fairly active on all grades except air-dried box, which, however, is showing some improvement. Among the numerous inquiries for lumber, one from Boston for a very large bill of North Carolina pine lumber has not yet developed into an order, but it is stated that the mills here will likely capture the bill. The demand from Europe has been only moderate during the past week, but it is expected that considerable business will be developed during June. It must not be forgotten that stocks in Great Britain and on the Continent are accumulating, and

buyers at present are very cautious, and are only taking what stock is needed for present wants. Shippers of both pine and hardwood under these conditions should be careful, lest they glut the market. The planing mills at Norfolk and adjacent points are all very busy, and have plenty of orders to keep them running for some time to come. Dressed lumber is firm for all grades. The various woodworking concerns in and around this port are all doing well, and making liberal shipments. It is said that New York parties are negotiating for the establishment of a large box-shook factory for the manufacture of cracker and cake boxes, with capacity of about 100,000 feet of lumber per day of poplar, pine and gum. The freight market is dull, although rates for desirable vessels are steady.

#### Savannah.

[From our own Correspondent.]  
Savannah, Ga., May 27.

The market for all grades of lumber has ruled active and steady, both at this and adjacent South Atlantic ports. At the moment there is unusual activity among lumber exporters of Savannah and Brunswick. It is stated that a single lumber firm has under charter to load and on passage cargoes amounting to 11,000,000 feet, and another firm has charters out for about 6,000,000 feet. During the past week the inquiries from Northern sources have been numerous, and the demand from the usual sources is active, with prices for desirable grades of lumber very steady. The market at all points in the interior of the State is in good shape, and the local movement for all grades of lumber is brisk. At nearby ports of Brunswick and Darien shipments of lumber and other wood products are larger than for April, and the outlook among the milling sections in the interior is considered very promising. Freights on lumber and cross-ties have ruled steady, with a fair offering of tonnage. The following charters were reported last week: Schooner Pendleton Sisters, 701 tons, from Brunswick to Las Palmas with lumber at \$10; schooner Carrie A. Bucknam, 226 tons, from Savannah to Bucksport with lumber at \$6.37½; schooner Edward P. Avery, 482 tons, from Savannah to New York with lumber at \$4.75, and schooner J. H. Butterick, 540 tons, from Brunswick to Philadelphia with lumber at \$4.50.

#### Mobile.

[From our own Correspondent.]  
Mobile, Ala., May 27.

The movement in sawn timber during the past week has been the feature of the market. Prices for sawn timber are firm and advancing at 12 to 12½ cents per cubic foot, with sales at the latter figure, and some millmen declining to sell at less than 13 cents. There is a light supply of timber on the market, and less sawn timber is being made, on account of the low prices ruling so far this year. Shipments of sawn timber last week amounted to 412,320 cubic feet, and for the season 5,853,437 cubic feet, against 3,729,460 cubic feet last year. In hewn timber prices are steady at 12½ to 13½ cents per cubic foot, with stocks very light and shipments for the week 39,006 cubic feet. Hewn oak is in moderate demand at 15 to 18 cents per cubic foot, and hewn poplar at 12 to 12½ cents per cubic foot. Saw logs are in good demand, pine being worth \$6 to \$9 per 1000 feet, and cottonwood logs \$4 to \$5 per 1000 feet. There is a fair movement in all grades and dimensions of lumber, and the market is active, with the demand principally from the United Kingdom and Continent. Lumber to the local trade is quoted as follows: Rough heart, \$13.50 to \$16; merchantable, \$10 to \$11; flooring, \$8 to \$14; ceiling (common), \$7 to \$11; heart, \$18 to \$20,



and sheathing, \$7 per 1000 feet. Receipts of lumber during the past week have been liberal, and mills are now running at their full capacity, as a rule. All the manufacturers of lumber are encouraged by the outlook, and most of them have all the orders they can attend to. Receipts of logs have been very light lately, and some of the mills have had to shut down in consequence. Freight on lumber continues to rule steady, with a light offering of desirable vessels. Among the charters reported last week were the following: schooner Gertrude A. Bartlett, 292 tons, from Ship Island to San Juan, P. R., with lumber at \$7.75 and port charges; schooner Iolanthe, 333 tons, from Mobile to Santiago with lumber at \$7.50; schooner Harry W. Lewis, 297 tons, from Ship Island to Lagunayra with lumber at \$11 and port charges, and schooner Clara A. Phinney, 389 tons, from Mobile to Havana with lumber at \$6.25.

#### Memphis.

[From our own Correspondent.]  
Memphis, Tenn., May 27.

The demand for the various hardwoods offered on this market has continued fully up to the high average noted in the last two reviews, the lumbermen all having about as much business on hand and in sight as they can handle with dispatch. The mills are all fully employed, and there are signs of increasing activity on every hand; in fact, as the weeks pass the situation becomes all the brighter, and the lumber manufacturers at this point and all through the Memphis district are realizing the hopeful expectations indulged in earlier in the season. The demand has come from both the West and the domestic North and East, while there has been a fair volume of export business, with good shipments going forward to South Africa, South America, and to the English and continental markets, though more particularly to the English, the recent inactivity in the latter country yielding to a very satisfactory business. There has been no material change in the character of the demand. Ash has been the most active wood for the domestic trade, and has divided honors with poplar and the oaks, especially white, in the export trade. Plain red oak has been in excellent call from the domestic East, and good shipments have gone forward in this wood. Cottonwood continues exceptionally dull, with the anomalous condition still in evidence—a better demand for commons and culls than for firsts and seconds. Cypress, too, has been very freely taken where available, the holders of this wood finding no difficulty whatever in placing it at very satisfactory prices. The price situation, except in cottonwood, is, if anything, firmer than at the close of the previous week, there being little disposition on the part of the trade here to make any concessions. Ash is the strongest wood in the list, with plain red the next in strength, which is due to the comparative scarcity in these woods. Prices on the quartered oaks are well maintained, though gum is rather easier, as the demand for this is quiet. There is considerable business doing in special orders at fancy prices, and the abundance of such orders is making it rather difficult in some woods, notably ash and plain red oak, to get as much of the specified sizes as are desired. The timber supply at the moment is adequate, though the fact that the timbermen left their logs in the sloughs and bayous and the smaller back streams, instead of bringing them to the banks of the larger bodies of water, has, with the rapid subsidence of the recent high water, resulted in effectually reducing the amount of timber within easy reach of the towboats. The bottoms are said to be in good condition, however, and

if hauling has to be resorted to this can be done more successfully than is usual at this time of the year. There are millions of feet of timber cut and ready for transportation that is now high and dry. One firm alone had 5,000,000 of timber engaged to be brought down early in the week, but this is not now available, and will not be unless the present rise assumes larger proportions than is now expected among the river men or hauling is relied upon to a very material extent. The demand for all classes of soft pines and other woods of this class has been up to the recent average, with prices ruling firm and unchanged.

#### Beaumont.

[From our own Correspondent.]  
Beaumont, Texas, May 25.

The shortage of various items is causing considerable trouble to the manufacturers in filling mixed car orders. The shortage is particularly apparent in 2x4. There is scarcely any of this on hand dry in any length; some mills have none, green or dry; 1x12 boards are also scarce. There is considerable shortage, too, in clear stock of four and six-inch widths, from which to make flooring, ceiling, siding and finishing. The stocks at mills do not accumulate, and it looks as if mills would go into the new season with less material than has ever before been the case. The slight retardment of orders occasioned by the uncertainty of freight rates has passed, and, since the dealers knew their orders would move on the reduced rates, business has been much brisker. The past week has been especially active. The new rates were effective on the 24th inst. Mills have issued new lists showing delivered prices on the new common point rate of 18½ cents, but the prices are identical with those before prevalent on 20-cent basis. There is no change in prices except the difference of one and one-quarter cents per hundred pounds, which, under the new system, the mills are getting the benefit of. Private advices from Liverpool evidence that timber is offered ex steamer at 43 shillings for 30 cubic average, which price eliminates mills from this section cutting such material. The demand for prime, sap strips and South Americans is fair, but little business, on account of prices all being too low. There is a particularly good demand for sap ties at this writing, which is gratifying to the manufacturers, for this item is generally hard to dispose of. They are now bringing \$8 at the mill, which is a nice figure for the lowest-priced item on the timber list. The shingle famine, which has prevailed in Texas for six months, is about over. Prices have not declined to any material extent, but the shingles can be procured with ease, and as soon as stocks get time to dry out there will probably be a reduction. The sash, door and blind factories in this city report business to be excellent. Orders are in such volume as to almost necessitate working overtime. Shipments are being made to the southern part of the State with great regularity. The crop prospects are good in the State. A much-needed rain fell in the agricultural part of the State the past week, and this has benefited corn and cotton hugely.

#### Lumber Notes.

The Arkansas Lumber Co. of Warren, Ark., has purchased 23,000 acres of yellow-pine timber land in Bradley county, Arkansas, from Knapp, Stout & Co. of Menomonie, Wis.

The National Furniture Co. of Memphis, Tenn., was incorporated last week, with a capital of \$5000. The incorporators are George Harsh, E. A. Long, B. M. Brown, Cabin Perkins and James H. Smith.

The shipments of lumber from the port of Charleston, S. C., for the week ending the 24th inst. amounted to 1,300,000 feet, and for the season 37,481,425 feet, against 42,488,343 last season.

The new saw-mill plant of the Laxley Lumber Co. at Apalachicola, Fla., one of the most completely equipped in the South, commenced operations on last Monday, the 27th inst.

Arkansas Lumber Co. of Wells, Texas, has completed its new large lumber plant, and is ready to ship promptly correctly graded and manufactured lumber. The saw and planing mills have capacity for 50,000 feet daily.

The Kaufman Stave & Lumber Co. of Hickman, Tenn., was organized last week, with a capital of \$15,000. The incorporators are Julius Kaufman, Emanuel Gerli, Isidore Hellman, Adolf Drey and Louis Matthey.

The Rock Hill Wagon Works of Rock Hill, S. C., was chartered last week, with a capital of \$7000. C. L. Wroton and H. M. Wroton are the incorporators. The concern proposes to manufacture wagons on an extensive scale.

Gilliland Electric Co., Adrian, Mich., wants prices f. o. b. on 1,000,000 feet of two-inch cull oak plank in short lengths (one foot or multiples thereof), either green or dry; also mill run and cull oak, butternut and walnut in carload lots.

Messrs. Saunders & Jones, who have recently purchased timber land from N. W. Pitts, will on the 1st of June commence the erection of a saw-mill plant at Pittsburg, Fla., to cost at least \$200,000, with a capacity of 100,000 feet of lumber daily.

It is stated that the lumber and pulp mills of Gen. John T. Wilder and also 25,000 logs at Unaka, Tenn., were entirely swept away by the recent flood in Western North Carolina. A large quantity of lumber, the property of the Unaka Lumber Co., also went down with the tide.

The Tazewell Coal & Land Co. of Tazewell, Va., has sold to a Washington syndicate 7500 acres of coal and timber land in Russell county, Virginia, for \$150,000. The land was purchased eight years ago for less than \$25,000, and previous to this sale the company had sold timber on the tract for \$35,000.

The Moynelo & Mansfield Co. of Savannah, Ga., was chartered last week, with a capital stock paid in of \$4000, to be increased to \$500,000. The company proposes to import and export on commission or otherwise lumber, timber, naval stores, etc., to act as merchandise agent and deal in real estate, etc. Its principal office will be at Savannah.

The Abrasive Lumber Co. of Waynesville, N. C., in its logging operations has secured a walnut tree said to be the finest ever logged in that or any other section of the country. It came from the head of Caney fork, in Jackson county, and contained 7503 feet, and is easily worth \$1000. It measured fifty inches at the small end of the first log. There were five logs twelve feet long and one eight feet long on the main body.

The shipments of lumber from the port of Mobile for the week ending the 24th inst. amounted to 2,691,927 feet, and for the season 84,250,627 feet, against 115,000,029 feet for the same period last year. The shipments of hewn timber for the week amounted to 39,006 cubic feet, and of sawn timber the shipments were the heaviest of any week of the present year, amounting to 412,320 cubic feet. Reduced to superficial feet, the week's shipments of timber and lumber aggregated 8,107,839 feet.

The Clyde Line steamers sailing out of Jacksonville, Fla., are having a good run of freight, the shipments of lumber by that line last week having been exceptionally liberal. The steamer Seminole cleared for New York with 350,000 feet of lumber and 5000 bundles of shingles; steamer Carib for Boston with 250,000 feet of lumber and 1000 bundles of shingles, and steamer Iroquois for New York with 300,000 feet of lumber and 4000 bundles of shingles.

Messrs. George T. Houston & Co. of Chicago have decided on a site for their new saw-mill plant at Vicksburg, Miss., and have purchased in the suburbs of that city 148½ acres of land, for which they have paid \$23,125. The proposed plant will include four band saw-mills and numerous other gang and resaws, including a number of veneer saws, and woodstock factory connected with conveyors to consume low-grade material and refuse. Construction on the new plant is to be commenced this coming fall, or probably sooner.

The Babcock Lumber Co., composed of Pittsburg capitalists, has purchased the entire town of Arrow, Pa., on the Baltimore & Ohio Railroad, in the Myersdale region. The purchase includes a saw-mill, planing mill, five miles of railroad with locomotives and cars, 70,000,000 feet of lumber and houses, stores, postoffice, etc. The Babcock Lumber Co., organized last April at Boykin, Ga., has large milling interests in that section, besides owning large blocks of valuable timber land in Miller, Baker and Decatur counties, Georgia.

#### Japanese in Texas.

According to a dispatch from Houston, Texas, property has already been secured in Southeastern Texas for the colony of Japanese who have decided to locate in the Southwest. It is understood that quite a number will come from California to engage in rice-growing and vegetable-raising. It is expected that the colony will comprise about 1000 families.

#### Literary Notes.

It would have to be a very exacting reader who could not find something of special interest in the Ladies' Home Journal for June. "Aileen," the charming new serial by Elizabeth Knight Tompkins, is begun. Florence Morse Kingsley tells entertainingly about a tame crow in "The Young Gentleman of the Woodshed." Clifford Howard narrates some "Love Stories of the Zoo," and the Rev. D. M. Steele records some amusing experiences in "People I Have Married," while William Perrine concludes "A Story of Beautiful Women," with a lively account of "The Dashing Kate Chase and Her Great Ambition." Three strong and thoughtful papers about women are "The American Woman and Dress," by Helen Watterson Moody; "What of the Woman Herself?" by "An American Mother," and "Women as 'Poor Pay,'" by Edward Bok.

The articles on "Russia of Today," by Henry Norman, which have been a feature of Scribner's Magazine (but have been interrupted for several numbers), are resumed in the June number with a paper on "Finland," which is just now the center of interest on account of the efforts of the Russian government to suppress the Finnish language in official business. Mr. Norman writes very sympathetically of this hardy people, who have so long maintained their individuality while a part of the Russian Empire. He gives remarkable instances of their energy and integrity, and shows the pathos of their attempt to keep their identity against heavy odds.

## MECHANICAL.

## Paragon Sewing-Machine Transmitter

The use of electricity as a motive power is extending to the machines of



FIG. 1—PARAGON SEWING-MACHINE TRANSMITTER.

various kinds used in manufacturing. Motors for such connection are the specialty of several prominent electrical constructors. The accompanying illustrations are of interest in this connection. They show the Paragon Sewing-Machine Transmitter. This apparatus' advantages may be briefly referred to as absence of belting; no rheostat; applied to any machine without mutilation; motor does not run continuously, but only with operation of machine; motor takes power only in proportion to amount of work being done and speed or number of stitches

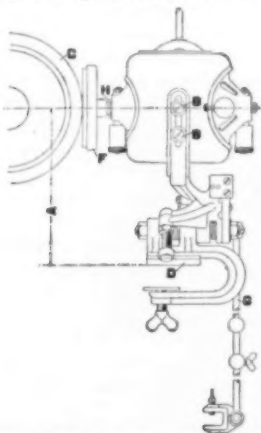


FIG. 2—PARAGON SEWING-MACHINE TRANSMITTER.

per minute; instantaneous stop "on the stitch" without the use of brake. The speed is variable, under perfect control of the operator, and giving any speed from two stitches per minute to 2000, and making it possible to "pick up" the needle the fraction of an inch when desired.

An immediate start at full speed can be had.

This device should not be confused with transmitters in which variable speed is obtained by allowing a belt or friction clutch to slip to a greater or less extent.

With the Paragon Transmitter the ma-

chine head is driven positively at all times and the variable speed obtained by means of a variable leverage, so that any degree of work, no matter how heavy, may be accomplished by allowing the machine head to operate at a sufficiently low speed.

tance, and with just sufficient friction to start the machine quickly and drive it properly.

The slide "D" may then be screwed down, thus insuring that the alignment will be preserved, and then the connecting rod "G" is attached to the treadle.

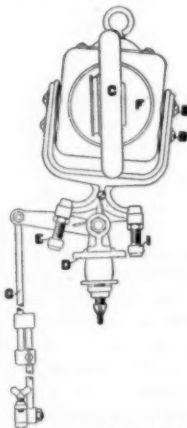


FIG. 3—PARAGON SEWING-MACHINE TRANSMITTER.

This transmitter has a special slide "D" for "drop-head" machines. It is made in a household and a factory size.

For further particulars write the maker, Paragon Fan & Motor Co., 572 First Avenue, corner Thirty-third street, New York.

## S. K. C. Frequency Changer.

A frequency changer occupies a unique position in electric central station equipments. It is an important piece of machinery in many of the modern stations which depend upon some long-distance power transmission for their electrical energy. These transmission companies, as a rule, generate current of a frequency too low for the successful operation of electric lights, either arc or incandescent. With a frequency-changer equipment central stations purchasing or generating current of low frequency are in a position to furnish to their customers electric energy

chine performs exactly what its name indicates, viz., it changes the frequency. Though it can be made to change the frequency from a higher to a lower one, it is generally used to transform from a lower frequency to a higher one, and while this change may be of any even ratio, the maker can use standard product only when the ratio is as 2 is to 1.

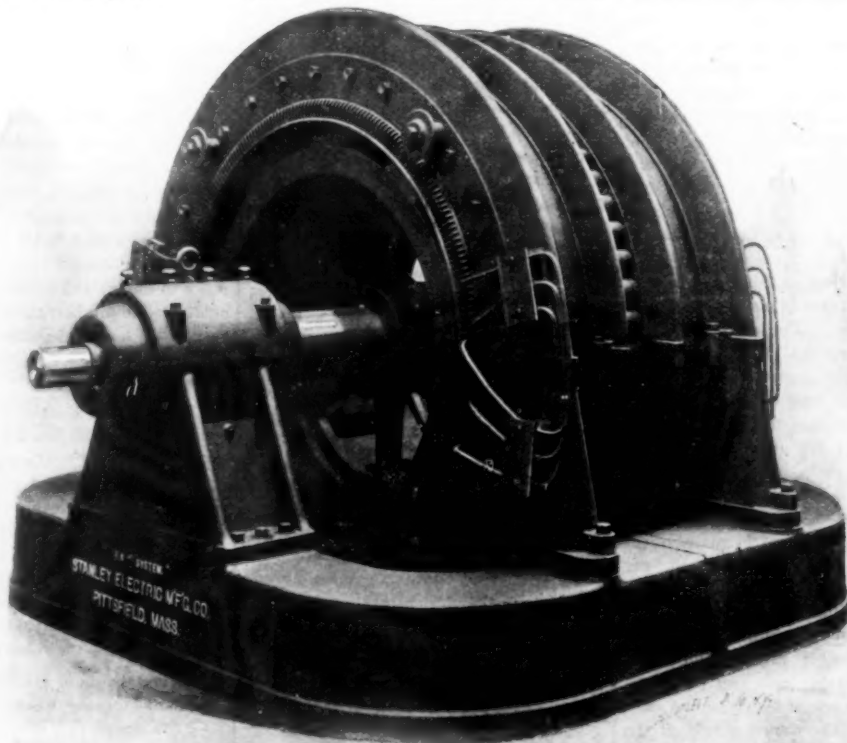
In addition to this, it can be built to deliver current of a different phase relation and voltage from that with which it is supplied. The generation of such a current is made possible with a single S. K. C. Inductor-type Frequency Changer, which, though it performs the functions of two different machines, presents the same general appearance as the standard inductor alternator. One-half of an S. K. C. Frequency Changer is essentially a synchronous motor, the other half an alternating-current generator. There is but one field coil, which furnishes the excitation for both the motor and the generator ends of the machine.

The ratio of voltage transformation may be as high as 10 to 1, not, however, exceeding 5000 volts in machines of less than 250 kilowatts capacity. The S. K. C. system of independent phase regulation makes possible also an individual variation of 10 per cent. on each phase.

Considering that the S. K. C. Frequency Changer possesses neither brushes, collectors nor moving wire of any kind; that but a single field coil is present where ordinarily four or more are required, and that the bearings of a single machine are made to suffice for two, the degree to which it approximates the ideal can be calculated.

The armature and armature coils are stationary. The armature is built up of laminae of iron, and the coils are comparatively small, and are wound and insulated separately and placed in the generator in the exact shape in which they are wound. The design of the machine is such that the replacing of an armature coil is extremely simple.

The inductor or revolving part consists



S. K. C. FREQUENCY CHANGER.

Next the slide "D" is placed so that the center "A" is in line with the center of the band wheel "C" (Fig. 3).

Then the friction wheel "F" is aligned so that it moves squarely across the band wheel "C," bearing evenly the whole dis-

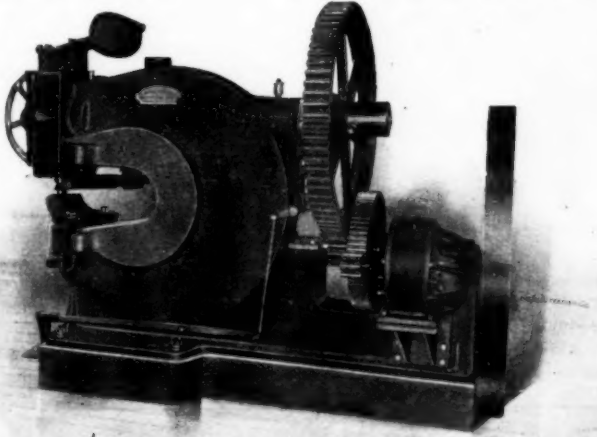
of any required frequency and phase relation.

It is of particular advantage to railway companies that would have a field for profitable lighting provided they had a frequency changer installed. This ma-

of a mass of cast steel secured to the shaft with laminated iron projections on its surface, and is without wire connections of any kind. The bearings are generous in dimensions and of the most approved self-aligning, self-oiling type.



The armature leads of the generator half and the field leads are brought to a marble terminal board placed on the machine. The phase regulators may be placed either upon the marble terminal board or on the switchboard panel controlling the machine, as may be desired. The armature leads of the motor half are connected to the line terminals from the switchboard by means of hard rubber-covered terminal connectors.



MOTOR DRIVING PUNCH PRESS.

In the armature windings of the changer all the armature leads are numbered to correspond with the numbers on the terminal board.

The field coil is wound on a copper spool, is stationary and insulated thoroughly. The copper spool removes the danger of a discharge breaking down the insulation should the field circuit be opened when fully charged.

The design permits of abundant ventilation and radiation, which, in connection with the extraordinary efficiency, reduces the temperature to a minimum. The exterior iron of the armature, which corresponds to the core of the armature in the older types of machines, is readily accessible, and as this is the hottest part of the generator, it is an easy matter to measure the maximum temperature of the machine at any time, a thing which is impossible with some older types.

The Stanley Electric Manufacturing Co., Pittsfield, Mass., builds the machine described and here illustrated.

#### Thacher Belt Fastener.

Many devices have been introduced for the fastening of belts while in use. Many have had disadvantages that were a con-

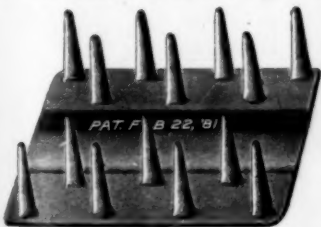


FIG. 1.

stant source of annoyance to their users. The fasteners, of which illustrations are herewith presented, have been greatly successful. They possess merits and ex-

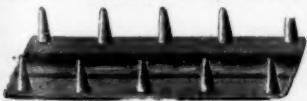


FIG. 2.

ceptional points of superiority that have recommended them to many experienced users. They will not tear or rip the belt, nor break the grain or fiber, or necessitate

any extra wear and tear whatever; yet they afford a smooth operating surface for the belt. The Thacher Belt Fastener is the name of this device. It is manufactured by the Thacher Belting Hook Co. of Cleveland, Ohio, to whom application may be made for further details.

#### Motor Driving Punch Press.

The use of electricity for driving machinery in factories of divers kinds is in-

tween the step and top bearing. Two adjustable idler stands are furnished, by which the machine can be driven from any direction.

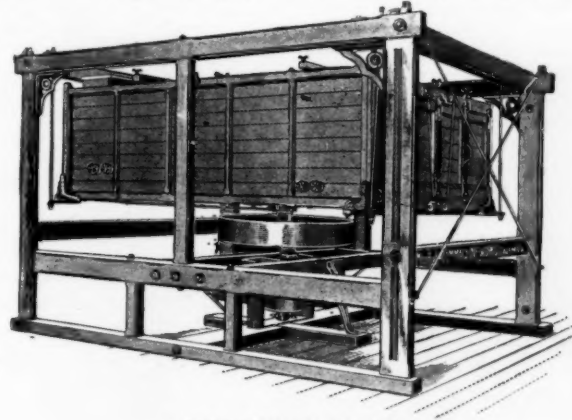
All the bearings are phosphor-bronze, and are self-adjusting. The crank-pin bearing consists of four adjustable pieces contained in hub of balance-wheel, which forms an oil well for the crank-pin. An adjustable balance-weight is provided, with pockets in same for small weights, with which a perfect balance can be secured. The machine runs very light, re-

Prices, sizes, capacity and any other information will be furnished by the builder, the Salem Machine Works, Salem, Va.

#### Ryan Self-Closing Work.

A new line of self-closing work, claimed to be founded on a radically different principle than has been shown before, is being placed on the market by J. J. Ryan & Co., the well-known brass men, of 68 West Monroe street, Chicago.

In the accompanying section illustra-



SALEM ROTARY BOLTER.

quiring no more power than one reel, but has the capacity of from four to eight reels, according to size of machine, capacity of mill and stocks to be handled.

One of the most important problems in a machine of this type is the cloth-cleaner. It is conceded by all that the proper place to clean the cloth is on the under side, and to be a success there should be no mechanism connected with it. The rotary motion of the machine should be all that is required to impart motion to the cleaner, and it should have

tion the main features distinctive of this new idea may be seen. There are no springs of any kind used in any part, the self-closing being accomplished entirely by water pressure. The solid bronze plunger and its flat compression packing rest on a flat seat, with all the pressure of the mains above holding them in place. By the action of the handle the plunger is lifted from its seat, and the flow of water coming from below through ports on either side is delivered out of the spout. When the handle is released the

O'Brien Patent.



SECTIONAL VIEW OF RYAN SELF-CLOSING WORK.

a free action and cover the full bolting surface of the cloth.

These important points are embodied in the cleaning device, which is a small disc of suitable material, in which is firmly secured a few small bunches of soft bristles, which are not cut off short and sharp, but left long enough to bend over under the silk, which keeps the bottom of the cloth swept clean at all times, the cleaner being supported by a coarse wire cloth underneath. There is no mechanism whatever, and nothing to give trouble.

flow of water carries the plunger to its seat. It cannot seat with a hammer, as the plunger can only fall as fast as water is admitted over it by the pressure. On the Ryan self-closing work there is no stuffing-box, as there is no water under pressure in the chamber from which the handle protrudes.

The makers say that the work has successfully passed the severest range of tests to which it was possible to subject it under varying conditions of pressure. Perfect results are guaranteed under one pound or 150 pounds. The principle on

#### Salem Rotary Bolter.

This bolter is put on the market after it has been thoroughly tested in every way in many mills.

This machine simplifies the equipping of flour mills, economizing in space, connections and power.

By the peculiar motion of machines of this class the percentage of middlings is increased, and they are also in better condition for the purifier and reductions, this being brought about by the gentle action on the stock. A brighter, clearer flour is produced than by reels.

This bolter is strictly a self-contained machine. It being bolted to the floor, requires no bracing or other fastening to the building.

The sieve-box is made of seasoned hardwood and white pine, and swings on four ball-bearing adjustable hangers.

The sieves can be removed from the end by loosening a few thumbscrews and taking off the end panel. Any sieve can be removed without disturbing any other sieve. And when the sieves are placed in position they are securely clamped down from the top, which prevents all possibility of specks getting into the flour. There is a simple cut-off with which the flour can be graded as readily as on reels, and without any change of cloths or sieves.

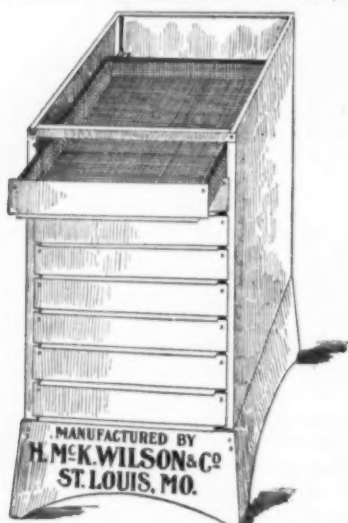
The supporting frame and sieve-box frame are mortised, tenoned and held together by joint bolts and rods. The aim and endeavor is to make this machine most practical, efficient and durable.

The arrangement for driving the machine permits the pulley to be placed be-

which they operate should make hammering or rattling impossible. Another claim is that they cannot be tied open, while a very apparent one is their extreme simplicity. Prices and discounts will be forwarded on application, and the goods will be shipped on a positive guarantee of perfection.

#### Model Fruit Evaporator.

Evaporated fruit is a table luxury as well as a merchantable commodity, and an apparatus has been placed on the market by H. McK. Wilson & Co., St. Louis, which is referred to as solving the difficulty heretofore experienced in producing it on any other than a large and expensive scale. The Model Fruit Evaporator, herewith shown, may be operated on any stove without any extra cost for fuel, and is claimed to do its work thoroughly and well. As stated by the makers, it will evaporate apples, pears, peaches and other kinds of small fruits and berries, as

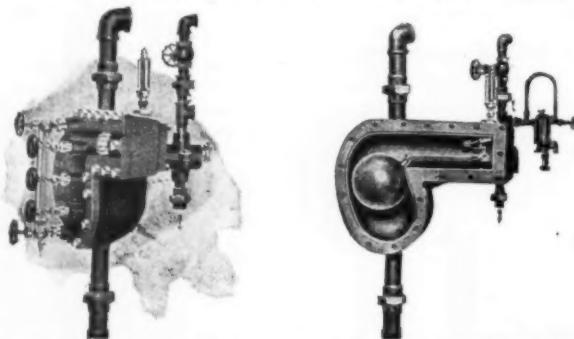


THE MODEL FRUIT EVAPORATOR.

well as many kinds of vegetables, especially pumpkins and squashes.

This evaporator has twelve square feet of drying surface, with eight drawers, which are eighteen inches long and eleven and one-half inches wide. Its capacity is about two bushels of fresh apples in twelve hours. It is something new, and combines great strength and capacity with simplicity and lightness. It can be easily lifted off and on a cooking stove, and the directions which accompany the

cates, this device is an automatic feed-water regulator, a low-water alarm and a water column, all in one. It has been installed in numerous plants, and buyers have, after thorough trials, always expressed their utmost satisfaction at its



CLARK REGULATOR ALARM COLUMN—With Front Attached and Removed.

thorough efficiency. Engineers are fully aware of the advantages attendant upon a continuous feeding of water to a steam boiler at exactly the same rate that it is evaporated, which means a heavy saving

the water replenishment being executed at the rate of its evaporation. The operations are simple, logical and entirely successful. As an economizer of fuel, repairs and time, and as a worker for safety

through the entire engine and electrical departments; they lapped over the intervening spaces, burned off the roof of the engine storage building and worked down through two floors of the office building. But the fire-wall around the power plant held the flame at bay, and the fire was eventually confined to the building in which it originated. An idea of the effects of the fire can be gained from the accompanying illustration.

New office and drafting-room quarters were immediately secured in a nearby building, and by noon the next day work was progressing much as usual. Large fireproof vaults containing all valuable drawings, correspondence and records were preserved intact; patterns were in building not reached by fire.

The main engine was equipped with a new belt, and on the second day after the fire the entire blower, heater, forge, galvanized-iron and shipping departments, with the foundry, pattern shop, etc., were in operation and shipments going forward as usual.

The problem of continuing work in engine and electrical departments was not

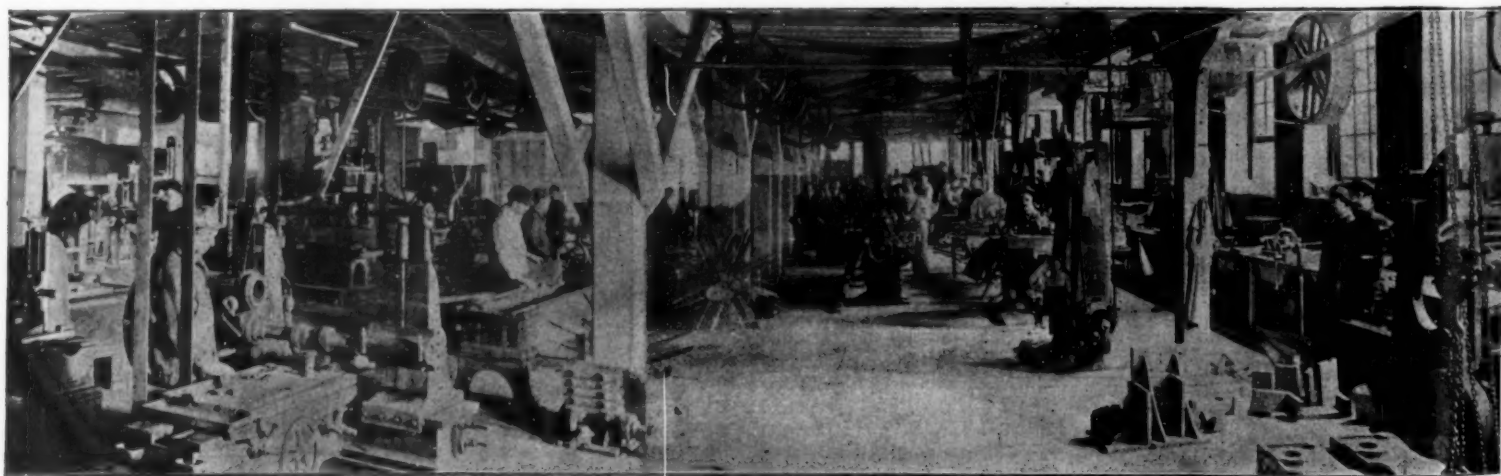


FIRE DAMAGE AT STURTEVANT SHOPS.

in fuel. This the Clark device accomplishes, as it does other important and desirable requisites. Imagine an engineer stationed at the boiler feed pump with his hand on the throttle valve and

and reliability, this device is a complete success. The manufacturer is the Clark Bros. Co. of Vicksburg, Mich., which is ready to supply further details to those interested.

so easy of solution. Although the fire had destroyed over an acre of floor space, the great extent of the works made it possible by a process of change and compression to provide available space in the



STURTEVANT SHOPS THIRTY DAYS AFTER FIRE.

evaporator enable anyone to operate it satisfactorily. Further information may be obtained from the makers.

#### Clark Regulator Alarm Column.

Our illustration presents a device that for practical economy will appeal to the discerning steam user. As its name indi-

his attention on the water glass. That is the operation in principle of the Clark Regulator Alarm Column. A valve (the regulator) is set in the steam line between boiler and feed pump. That valve is actuated directly by the water in the boiler through the medium of the float in the float chamber of the Clark apparatus. If

#### A Story of Restless Energy.

A story of true American enterprise is that of the B. F. Sturtevant Co. during the past few weeks. Early on April 14 fire was discovered in the electrical department of its extensive works at Jamaica Plain, Mass. The flames spread

remaining three acres of floor area. This was done at once, and a large shipping and storage area on the main floor was transformed into a machine shop for heavy work, the large galvanized-iron department gave way to a toolroom and machine shop for lighter work, while the electrical department was installed on the



vacated floors of another building. The introduction of electric motors at local points simplified power transmission. Meanwhile rush orders of new high-grade modern machine tools began to arrive and be put in operation.

Thirty days after the fire these shops were thoroughly established, as evidenced by the accompanying reproduction of a photograph.

#### Gas Regulator for Low and Medium Pressures.

Illustrations are presented herewith that show a gas regulator made either for low or medium pressures. The former type is extremely sensitive, and is especially adapted to give a uniform pressure

the diaphragm to move down and open the valve. This remains open until a sufficient quantity of gas comes in to restore the pressure to what it was in the beginning. If there is a constant flow of gas from the regulator the valve will remain open far enough just to balance the outgo, and thus keep the pressure almost up to that obtained when the gas is not being drawn out. The pressure is varied by changing the weights in the cup.

These regulators are made by the Jacobson Machine Manufacturing Co., Warren, Pa.

#### Shop Oil Cabinets.

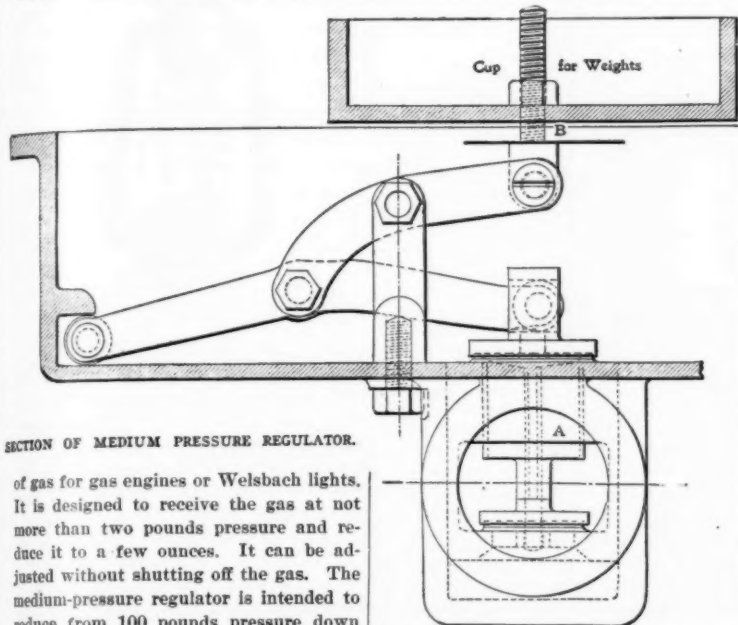
The manufacturing, mining and milling world should be especially interested in

device is known as the Bowser Adjustable Measure Self-Measuring Shop Oil Cabinet, and it is made by Messrs. S. F. Bowser & Co. of Fort Wayne, Ind. The firm will supply a neat booklet of details upon application.

#### The Gravity Dam.

Utilization of the energy developed by running water has been one of the leading features of industrial progress during recent years. The construction of dams is one of the most important and efficient classes of work in which the hydraulic

and analyzed and laws of action and reaction to be given thought, which can only be acquired by a technical education, combined with that most necessary knowledge obtained from long practice in dam building. Water pressure, dynamics, statics, capillary attraction, vibrations, ice expansion, gravity, longevity, environments and other influences have all been studied for many years by Messrs. E. R. Beardsley & Son, who build the Beardsley Gravity Dam. The conversion of the force of gravity from an element of danger into one of safety



SECTION OF MEDIUM PRESSURE REGULATOR.

of gas for gas engines or Welsbach lights. It is designed to receive the gas at not more than two pounds pressure and reduce it to a few ounces. It can be adjusted without shutting off the gas. The medium-pressure regulator is intended to reduce from 100 pounds pressure down to a pound or so. The main features are shown in the line drawing, which represents a portion of its lower shell, it being essentially the same as the low-pressure regulator, except that the inlet valve is a balanced one, which is unnecessary in the low-pressure regulator.

The body is divided horizontally by a diaphragm of rubber or other flexible material stretched across and held between the flanges of the upper and lower shells. The space above this diaphragm is in communication with the atmosphere. The space below is a gas chamber, which has an outlet on the side and an inlet at



LOW PRESSURE GAS REGULATOR.

the bottom, the latter regulated by the balanced valve A. This valve is controlled by the diaphragm through a system of levers which, it will be seen, are clamped to the diaphragm at B. There is a cast-iron cup fastened over the screw and above the diaphragm at this place, intended to receive weights to a greater or less quantity. The downward pressure made on the levers by these weights, together with that of the atmosphere on the diaphragm, balances the pressure of the gas in the lower compartment on the lower side of the diaphragm, to which must be added, of course, whatever upward thrust there may be, due to the net weight of the levers and valve.

When some of the gas in the compartment below the diaphragm is drawn out it reduces the pressure there, allowing

the accompanying illustration of a shop oil cabinet. This cabinet offers to every user of oil a convenient and handy receptacle for the storage and measuring of oil. The measuring is done automatically, pints, half-pints and quarter-pints being drawn at a stroke of the lever. The cabinet is made in various sizes. It is a pro-



SHOP OIL CABINET.

engineer and contractor can engage, as the experienced well know, and those not experienced can readily appreciate.

There are so many facts to be considered and so many difficulties to be overcome that it would be hardly possible to enumerate them. But whatever difficulties can exist are claimed to be entirely suppressed by the gravity dam. The possibility of water waste from leaky dams, the risk from casualties and the annual expenditures for maintenance are said to be totally minimized by the gravity dam. The crucial part of dam construction, and

is a distinctive feature of this dam, and is so successfully applied that its originators claim it guarantees the highest attainable degree of safety. This conversion may be profitably utilized on many streams having soft or moving quicksands and others whose vast powers are now being wasted because of the supposed impracticability of damming them. On such streams it is stated the gravity dam may be built at the same cost and durability as on other streams having an equal volume of water.

A reading of a thorough exploitation of



BEARDSLEY GRAVITY DAM ON THE ST. JOSEPH RIVER AT BUCHANAN, MICHIGAN.  
400 Feet Long, 10 Feet High, on Soft Bottom.

motor of economy, by stopping the small leaks; it is neat, clean and safe. Some of the most extensive establishment in the manufacturing world are using this cabinet, and the demand is increasing in large ratio as the advantages of possessing one cabinet (or more cabinets where necessary) become known to oil users. Any kind of oil can be readily measured. The

that requiring the greatest care and the most experienced judgment, is the foundation. The latter is the point of greatest hydraulic pressure, and it is there that nature arrays its forces against the skill of the dam builder.

There are many elements to be considered, many surroundings to be taken into consideration, conditions to be weighed

the gravity dam shows that the claims of superiority may be briefly summarized as follows: Minimum cost, durability, water-tight, no graveling, no settling, flood-proof, expansion-proof, ease of construction, vacuum-proof and maintenance comparatively nothing.

The accompanying illustration shows a dam built by the Beardsleys in 1893, and

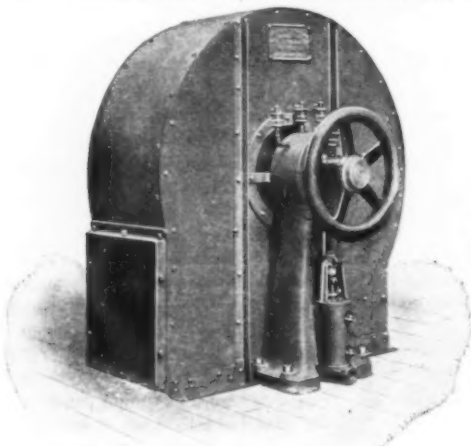
it has not called for \$15 worth of repairs since then. The Messrs. Beardsley have recently organized a company and chartered as the Beardsley Gravity Dam & Construction Co., with offices at 205 South Main street, Elkhart, Ind., for the construction of gravity dams and other kinds of hydraulic work, docks, piers, ditches, waterways, etc. Their publication, entitled "The Gravity Dam, and Essays on the Fallacies, Problems and Philosophy of Dam Construction," now in its second edition, may be obtained by application direct.

#### Textile Drying.

Referring to that portion of textile-fabrics processes which relates to the drying of raw material, or more particularly silk, cotton and woolen and worsted yarns, attention is called to the improvements in the application of the forced hot-air system of drying. Heat in itself is not the active factor of drying in such cases. The action of heat is indirect, that is, it increases the power which a body of air has of absorbing water. In other words, the amount of moisture which air will take up and hold in suspension before reaching its point of saturation increases rapidly with its temperature. For instance, if we double the temperature of air at 62° F. we increase sixfold the weight of moisture which it

The accompanying illustration shows the style of fan employed in handling the air for a drying plant recently built for installation in a large Southern cotton mill for drying skein yarns. The fan engine and heater for the drying plant was constructed by the Buffalo Forge Co., heating and ventilating engineer, Buffalo, N. Y. The drying room is 25x30 feet in area, and is supplied by a Buffalo steel-plate steam fan drawing air through a Buffalo Fan System Heater. The fan is a 60-inch full-housing bottom horizontal discharge fan built up of heavy steel plate and rigidly braced with angle iron. The overhung blast wheel, forty-three inches in diameter, consists of steel-plate blades, with backwardly-covered tips riveted to wrought-iron spider arms, and having conical side plates to insure rigidity. As to the direct-connected engine, the guides, frame, cylinder steam chest and base are cast in one piece, thus providing an extremely strong and compact construction, as shown.

The heater for this plant comprises five abutting heating coil sections, each consisting of four staggered rows of one-inch steam piping screwed into the steam and return compartments of the cast-iron base. Five two-inch pipes, with valves taking steam from a common header, feed the sections, which are likewise fitted with the necessary drip and trap connec-



BUFFALO FAN FOR TEXTILE DRYING.

will absorb before becoming saturated. Again, comparing air at 32° F. with the same volume at 122° F., the weight of water which can be held in suspension in the two cases is in the ratio of 1 to 17. Hence it is said to be insufficient simply to heat the drying machine or room by such devices as steam coils. One must, in addition, provide means for removing the air particles as they become moisture-laden, and for even drying this must be done steadily and uniformly. Here is where the fan claims pre-eminence. In this system the heated air under pressure, passing over and through the yarn in the drying apartment, insures the development of the most favorable conditions for uniform and speedy drying. In addition, since the coils for heating the air are grouped together, the temperature of the air, and, if desired, its humidity, may be placed under easy control; also by varying the fan speed the velocity and volume may be regulated.

The type, capacity and arrangement of the fan-and-heater drying system varies to suit the differing conditions of individual cases, such, for instance, as the texture of the yarn. The fan may either blow through the heater or else exhaust through it, and the material may be arranged for drying in various ways. A convenient arrangement is to provide two drying rooms or compartments, so that air may be forced through the one while the other is being emptied or filled.

tions. The steel-plate heater case surrounding the coils connects twenty-four inches beyond them to the single fan inlet opening, for the fan draws the air over the coils, as before mentioned.

There are many advantages in drying plants of this description. The main point which it is desired to bring out in conclusion is the perfect control which is thus had over the drying conditions. By a proper regulation of the fan speed and the heater steam supply the rapidity of drying, and hence the capacity of the apparatus per unit of time, may be varied at will. This feature of positive control, combined with uniformity of action, serves to make the system extremely popular for textile mills.

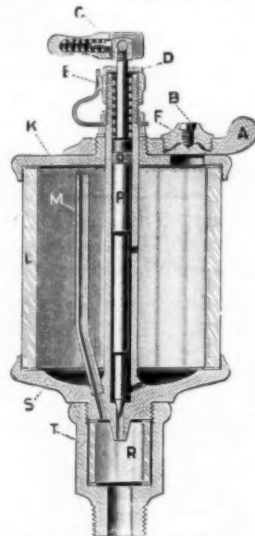
#### Improved "Paragon" Glass-Body Sight-Feed Lubricator.

Users of gas, gasoline or oil engines will be interested in the accompanying sectional illustration of an improved lubricator. This improved lubricator will adequately fulfill the requirements of the service for which it has been designed. Its construction has been improved over previous forms, and all objectionable features have been eliminated. The construction is very compact, and the general design will appeal to users.

The filling arrangement consists of a screw-down slide filler. Referring to the sectional illustration it will be seen that the slide (A) screws down on and around

the lid of cup, and has a loose plug, which covers the filling hole when slide is swung over to a closed position. This loose plug is so arranged that the water on same can be adjusted by turning down screw (B). The whole construction is very heavy, and the slide can be depended upon to seat perfectly and remain tight for an almost indefinite period. On account of this construction it is possible to secure a large filling hole, a desirable feature.

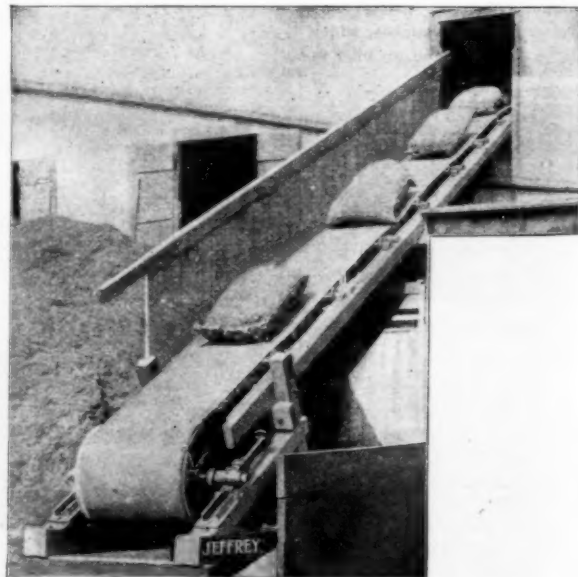
The feed-regulating mechanism is satisfactory, and the feed can be put on or off by raising or lowering the cam lever (C). The rate of feed can be adjusted by turning nut (D), which is prevented from



THE "PARAGON" LUBRICATOR.

loosening by spring (E). By this arrangement the feed can be set and turned on or off without disturbing the rate of flow. The cup is thoroughly packed both around the stem and at the top and bottom of body and sight-feed glasses, and cannot become leaky.

The whole cup is secured together by patented lock-nut construction (not found in other kinds), to prevent the cup jarring apart, due to the shaking of the engine, and also dispenses with the annoyance of oil leaks. The sight-feed glass (R) is quite large, and can be readily cleaned by unscrewing the upper part of the cup from the base piece. These cups are con-



JEFFREY SACK CARRIER.

structed of the best material throughout.

Where a heavier and more substantial cup is required, the maker offers a pattern which, although not any more efficient, is somewhat heavier in construction.

The Lunkenheimer Improved Paragon Glass-Body Sight-Feed Lubricator is

manufactured by the Lunkenheimer Co. of Cincinnati.

#### Junior Tubular Lantern.

Oil lanterns find their use in all avenues of industrial life and various other directions. The manufacture of lanterns has been improved greatly during recent years, and these goods are now offered in a perfected form that affords entire satisfaction to users. Tubular lamps and lanterns have for years been the specialty of the R. E. Dietz Co., 25 Lighthouse street, New York city, and its name on a lantern has become synonymous with a guarantee of highest excellence. The company's ex-



JUNIOR TUBULAR LANTERN.

tensive plant enables it to produce a varied line of its chosen product for all kinds of vehicles, for street lighting, for steam-railway use and for hand carrying. The accompanying illustration presents the most recent Dietz lantern, just being put on the market. It is the Junior Tubular Lantern, twelve inches high, five-eighths inch wick, light in weight, absolutely windproof, and cannot be jarred out. It gives a large white light, and is most convenient for use, made in both tin and brass.

For lanterns of any kind apply to the Dietz Company.

#### Jeffrey Sack Carrier.

The accompanying illustration shows a Jeffrey Belt Conveyor furnished for handling bags of tanbark. The belt is twenty-six inches wide, and supported on special roller carriers. The total length of the carrier is about seventy feet, and is doing the work formerly done by four or five

men, who carried bags up a steep embankment into the second story of the building.

The Jeffrey Manufacturing Co., Columbus, Ohio, makes a specialty of furnishing carriers for all purposes, and will be glad to quote interested parties upon application.



# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD** seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

## ALABAMA.

**Anniston—Brick Works.**—The fire-brick works reported during past week as established by Scarborough, Gardener & Emory will operate as the Southern Fire-Brick Co., which has been organized by parties named.

**Anniston—Iron Furnaces.**—Woodstock Iron Works (New York office, 35 Nassau street) is now preparing to blow in furnace lately noted as to resume; two new washers will be erected and other necessary improvements will be made; will blow in July 1. J. W. Woolfolk will be manager.

**Birmingham—Steel-mill Enlargements.**—A special dispatch states that the Tennessee Coal, Iron & Railway Co. will erect ten additional open-hearth furnaces soon after completion of the rail and structural mill, now building. This enlargement would make capacity daily 1500 to 2000 tons of basic steel for manufacture into blooms, slabs, billets, etc.

**Enterprise—Cotton Mill.**—Thills & O'Neal will build a cotton mill; cost probably \$25,000.

**Florence—Box Factory.**—The establishment of a factory for cigar and tobacco boxes, using gum timber, is contemplated. A. A. Berger can give information.\*

**Geneva—Cotton Gins and Fertilizer Factory.**—Incorporated: Geneva Gin & Fertilizer Co., capital \$4000, with A. F. Tatom, president, and J. A. Jenkins, secretary, to erect cotton ginnery and later a fertilizer factory.

**Heflin—Saw-mill.**—Baber & Hardy will rebuild their \$2000 saw-mill reported burned.

**Jackson—Oil Wells.**—J. D. Hand and W. T. Hand of Dolives, Ala., have secured about 15,000 acres of land in Clark county, as recently reported, with a view of prospecting for oil and minerals.

**Mobile—Oil Wells.**—George C. Leatherbury, Jr., has arranged with Charles Rich of Richburg, Miss., for boring oil well in Washington county.

**Roanoke—Electric-light Plant and Water-works.**—The city has sold bonds (previously reported) and will commence work about June 15 on proposed \$25,000 water-works and \$10,000 electric plant; Z. J. Wright, mayor.\*

**Talladega—Grist Mill.**—Talladega Mercantile Co. will rebuild its grist mill (not flour

mill, as stated during the week), recently burned. Contract has been let for three-story 56x70-foot building and machinery of 2500 bushels capacity per twenty-four hours.

**Union Springs—Broom Factory.**—G. A. Ritch has established a broom factory with capacity for fifty dozen per week, which will soon be increased to 200 dozen per week.\*

**Union Springs—Barrel Factory.**—South Carolina parties will establish a barrel factory. Possibly W. A. Curry can say who is interested.

## ARKANSAS.

**Boonville—Milling.**—Incorporated: Keystone Milling Co., capital stock \$50,000, with B. D. Castleberry, president, and Oles Stofor, secretary.

**Dumas—Telegraph Company.**—Arkansas River Telegraph Co. has been incorporated, with capital stock of \$50,000, to build a line from Winchester to Red Fork by way of Dumas. J. Pindall is president; W. A. Chesire, M. W. Quilliny, Jr., and J. Bernhardt are incorporators.

**Harrison—Oil Wells.**—Chartered: North Arkansas Oil & Development Co., capital stock \$100,000, by John O'Connell and Edgar Brewster of Pine Bluff, Ark., and John Brubaker of Pueblo, Col.

**Lake City—Shingle and Lumber Company.**—Lake City Shingle & Lumber Co. has been incorporated, with Robert McCreary, president; Louis Brathers and Robert T. Woodson; capital stock \$6000.

**Little Rock—Electric-light Plant.**—W. H. Wissig of St. Louis, Mo., will buy the municipal electric-light plant.

**Little River County—Gold Mines.**—G. J. Antz and associates of New Orleans have optioned gold properties in Little River county, Arkansas, and are organizing company for developments.

**Mansfield—Oil Wells.**—Chartered: Mansfield Oil & Gas Co., with capital stock of \$25,000, by Thomas R. Tennant, president; Robt. J. Baldwin, vice-president, and L. C. Packard, secretary.

## FLORIDA.

**Bartow—Bridge.**—The city will construct bridge across McKinney branch. Address "The Mayor."

**Fernandina—Sewerage System.**—It is rumored the city council will take action towards construction of contemplated sewerage system. Address "The Mayor."

**Jacksonville—Brick Works, etc.**—Incorporated: Duval Brick & Construction Co., capital stock \$10,000, by D. T. Doughtry, H. E. Bowden, Edwin Tate and others; purpose, to manufacture brick, construct buildings, etc.

**Madison—Electric-light Plant.**—Madison Power Co. has been granted privilege of establishing and operating an electric-light plant.

**Orlando—Electric-light Plant.**—City will vote June 22 on proposition of J. M. Cheney and associates for erection of electric-light plant of twenty-eight 2000-candle-power arc lights. If plant is installed the Orlando Water & Light Co. will be organized to operate it.\*

**Pittsburg—Saw-mill.**—Saunders & Jones will build saw-mill to cost \$200,000 with daily capacity of 100,000 feet of lumber.

## GEORGIA.

**Atlanta—Fertilizer Works.**—Armour Fertilizer Works of Chicago, Ill., will, it is reported, establish a \$500,000 fertilizer plant at Atlanta to have capacity of 50,000 tons per year. Several separate buildings of brick and stone are to be erected and latest machinery installed. A. A. Smith, Prudential Building, may possibly give some particulars.

**Augusta—Cotton Mill.**—Isaetta Mills, recently reported as having applied for use of 1000 additional horse-power, was not purchased by Woodward, Baldwin & Co. of Baltimore and New York, as this department erroneously stated. The plant will be put in operation. Stewart Phinizy is interested.

**Augusta—Ice Plant.**—George L. Baker, W. S. Reamer, James D. Dawson and others have incorporated the Interstate Ice & Fuel Co. for the manufacture of ice, etc. Capital stock is \$100,000, with privilege of increasing to \$500,000.

**Cartersville—Electric-light Plant.**—City will vote June 22 on bonds for \$10,000 to build the proposed electric-light plant; F. M. Ford, mayor.

**Cedartown—Paper-box Factory.**—Daniel

Baugh of Philadelphia, Pa.; Paul D. Baugh, Geo. H. Wade and Chas. E. Kuster have incorporated the Kuster Manufacturing Co., capital stock \$15,000, to establish the paper-box factory lately reported. Contract awarded to Geo. W. Trammell of Rome for erection of brick building 60x150 feet, and will install machinery for daily capacity of 3000 boxes. Address Chas. E. Kuster.

**Columbus—Brick-yard.**—G. O. Berry has made improvements to brick plant, including a kiln with capacity of 75,000 bricks per day.

**Columbus—Cotton Mill.**—It is rumored that Bibb Manufacturing Co. of Macon (where it operates 44,500 spindles) will build a mill at Columbus. This new mill was previously talked of.

**Columbus—Cotton Mill.**—Eagle & Phenix Mills has ordered 5900 more spindles, costing about \$20,000.

**Columbus—Cotton-oil Mill and Fertilizer Factory.**—James W. English, Jr., R. F. Maddox and Thomas R. Payne of Atlanta, and J. J. Parker of Ramsey, Mich., have incorporated the Independent Cotton Oil Co., with capital stock of \$100,000, for the manufacture of cottonseed oil, fertilizers and for ginning and baling cotton.

**Lafayette—Flour Mill.**—T. A. Jackson writes that he has decided not to build the flour mill recently reported.

**Macon—Barrel Factory.**—It is said that J. N. Neel will also establish a barrel factory besides the \$50,000 brick works reported last week.

**Macon—Kaolin Mines, etc.**—P. D. Todd, W. S. Deidrick, Cecil Morgan and E. Y. Mallory have incorporated Georgia Kaolin Co., with capital stock of \$30,000, for the mining of chalk, kaolin, clay, etc.

**Macon—Box, etc., Factory.**—H. C. Bond, G. H. Tharpe, J. H. King and J. A. Schaefer have incorporated Southern Stave & Heading Co., with capital stock of \$20,000, for manufacture of boxes, barrel heads, staves, etc.

**Montezuma—Oil Mill.**—Montezuma Manufacturing Co. has incorporated for erection of the cottonseed-oil mill reported recently to be established by W. H. McKenzie of Atlanta, Ga. Capital stock is \$37,500. Others interested are E. B. Lewis, J. E. Reed, C. H. Richardson and T. R. McKenzie.

**Sparta—Cannery.**—The company reported as organized with J. D. Walker president is known as the Hancock Canning Co., with authorized capital of \$10,000; capacity of plant will be 2000 cans.

## KENTUCKY.

**Ashland—Mineral and Timber Lands.**—Harbeson & Walker Co. has been organized, with capital stock of \$100,000, for development of mineral and timber lands in Eastern Kentucky.

**Bardwell—Mill and Elevator.**—Citizens' Mill & Elevator, Water & Light Co. has incorporated, with capital stock of \$12,000, and R. Randal, president; W. L. Mosby, vice-president; Luther Wilson, secretary and treasurer. Structure will be four stories.

**Louisville—Dry-kiln.**—Louisville Veneer Mills will rebuild dry-kiln at once, reported burned.\*

**Louisville—Nail Works.**—Kokomo (Ind.) Steel & Wire Co. is reported as contemplating the erection of nail works at Louisville.

**Louisville—Drainage System.**—It is stated that property-owners will arrange for drainage work to cost \$50,000 in order to reclaim certain lands. Possibly Temple Bodley, office in Columbia Building, can inform.

**Louisville—Filter-house.**—Louisville Water Co. has let contract to National Roofing & Supply Co. for erection of concrete filter-house 120x400 feet, and for coagulant house 60x120 feet, 82 feet high.

**Owensboro—Buggy Shops.**—Hill & Basham will erect addition for buggy shops.

**Paducah—Buggy Factory.**—Finis E. Lack and E. P. Gilson of Paducah, with Owensboro (Ky.) and Cincinnati (Ohio) parties, will organize company to establish buggy factory of 8000 capacity yearly.

**Richmond—Barrel Factory.**—Humes Bros., recently reported to establish barrel factory, have bought equipment of machinery costing \$5800.

**Sunnybrook—Oil Lands.**—Kentucky Union Oil Co., reported recently, organized about a year ago, and is reorganizing, with a capital stock of \$200,000, for extending operations in

different oil fields. A. H. Wood of Harriman, Tenn., is president, and S. H. Wood of New Britain, Conn., secretary and treasurer. Company's home office will be at Harriman.

## LOUISIANA.

**Alexandria—Bridge.**—Shreveport & Red River Valley Railroad Co. (office at Natchitoches) is empowered to bond for \$1,240,000 for bridge construction.

**Alexandria—Power-house.**—New power-house will be erected for the city electric-light and water-works plant; Ira W. Sylvester, city engineer.\*

**Daspt—Bridge.**—A bridge will be constructed across Bayou Queue de Tortue at Daspt. For further information address J. N. Williams, clerk of police jury at Abbeville, La.\*

**Jennings—Rice Cultivation.**—James A. Radford of Hopkinsville, Ky., is representing capitalists who propose buying 20,000 to 40,000 acres of land for rice cultivation.

**New Orleans—Oil and Mineral Lands.**—Rufus C. Webb, W. H. Douglas, Isaac Levy, C. M. Murray and others have incorporated the White Sulphur Oil & Timber Co., Limited, with capital stock of \$500,000, for development of oil wells, sulphur and other mineral lands, timber lands, etc.

**New Orleans—Produce Company.**—Louis Darring, Philip Nagele and others have incorporated the United Produce Co., Limited, with capital stock of \$50,000, and privilege of increasing to \$100,000.

**New Orleans—Chair Factory.**—William S. Wagner, Henry R. Fine, Chas. A. Borey and Edward S. Williams have incorporated the Crescent Chair Co., with capital stock of \$20,000, for manufacture of chairs, etc.

**New Orleans—Transportation Company.**—New Orleans, Gulf & Navigation Co. has been organized to establish steamship line between New Orleans and Brownsville, Texas. Board of Trade can give information.

**New Orleans—Oil Wells.**—Louisiana, Texas & Mississippi Oil & Mineral Co. has been incorporated for development of oil properties; capital stock \$250,000. Robt. G. Memory is president; J. P. Douglass, secretary and treasurer.

## MARYLAND.

**Baltimore—Lithographing.**—Eickenberg-Walters Lithographing Co. incorporated by William Eickenberg, John M. Walters, Bruno Walters, William T. Criswell and Herman D. Hinternesch; capital is \$3000.

**Baltimore—Automobile Factory, etc.**—Snoedal Manufacturing Co. is enlarging its plant and has incorporated; will continue manufacture of bicycles, adding the manufacture of automobiles. Address 2552 Madison avenue.

**Baltimore—Couch Company.**—Incorporated: Perfection Couch Opening Co., by John B. Ensor, Joseph P. Neely and Hiram F. Henderson of Baltimore, and Emmett L. Pettit and Frederick Dalkom of Prince George's county; capital is \$5000.

**Baltimore—Gas Appliances.**—Incorporated: Maryland Improved Gas Co., for owning and operating inventions in gas, by Robert E. L. Griffith, Charles C. Hughes, Harry M. Cash, Samuel W. Regester and Edwin Hewes; capital stock \$25,000.

**Baltimore—Land Company.**—St. Helena Land Co. has been incorporated, with capital stock of \$18,000, by Joseph C. Townsend and others.

**Baltimore—Extract Factory.**—Brady-Robinson Company has been incorporated for manufacturing flavoring extracts by S. Proctor Brady, Bruce Robinson, William H. Rinehart and others. Capital stock is \$10,000.

**Baltimore—Pottery Supplies.**—American Pottery Supply Co. has been incorporated, with capital stock of \$10,000, by James Gittings, Henry N. Hanna, John B. Hanna and others; capital stock \$10,000.

**Baltimore—Drug Company.**—Chas. W. Heusler, R. Taylor Sauerwien, J. Hurst Purcell and others have incorporated the X. O. Dust Manufacturing Co., for dealing in drug specialties. Capital stock is \$20,000.

**Baltimore—Brush Factory.**—Chartered: Rennous, Kleinle & Co., for manufacturing brushes, by Alexander C. Wright, Wm. P. Bigelow, E. H. Weibourn and others; capital stock \$175,000.

**Baltimore—Pier.**—Locust Point Terminal & Forwarding Co. has made application for permission to extend its five piers at Locust Point. Permission has been granted for ex-

tension of one pier, and the harbor board will consider the application for extension of the other four at its next meeting, June 4.

**Havre de Grace—Boat Works.**—C. C. Pusey has established the Susquehanna Boat Works, and will build steam and naphtha launches up to seventy-five feet, also sailboats, racing yachts, etc.\*

**Laurel—Water Supply.**—The city has not as yet determined whether to obtain its water supply from artesian wells or from lake. Work on the plant is now being pushed by contractors. "City Engineer" is now preparing report on the supplies available.

**Laurel—Pickling Plant.**—A report states that H. J. Heinz Co. of Pittsburgh, Pa., will establish a pickling plant at Laurel.

**Ocean City—Pier.**—The city has granted franchise to W. J. Warrington, representing American Electrical Amusement Co. of Philadelphia, Pa., for construction of steel pier.

**Rising Sun—Paper Mill.**—Cecil Paper Co. has been organized, with \$50,000 capital, and will establish mill for manufacture of wall-paper, with capacity of six tons per day, using water flow for power; building will be two stories, 180x60 feet; John McCoy, president; H. H. Weber, secretary, and Chas. E. Lafean, manager, all of York, Pa. Address manager at York.

**Westminster—Electric Plant.**—Incorporated: Conestoga Electric Light & Power Co., with Isaac S. Spatz of Mohrsville, Pa.; Henry Burger of Lancaster, Pa.; Charles H. Wlend of Reading, Pa.; Hamlet Jarvis, Sr., M.D., of ElkrIDGE, Md.; Daniel R. Brewer, Sydney C. Long and Ellery C. Folger of Baltimore, as directors; will manufacture electricity; capital stock is \$100,000.

#### MISSISSIPPI.

**Corinth—Water-works.**—Corinth Water-Works Co., lately noted as having about completed plant, will lay two miles more of pipe, drill another well and build 500,000-gallon reservoir.

**Gulfport—Land Improvement.**—Standard Land Co., P. A. Dolan, secretary, reported recently as incorporated, has purchased and will improve 400 acres of land.

**Hattiesburg—Coal Company.**—Incorporated: Hattiesburg Ice & Coal Co., capital stock \$18,000, by D. E. McInnis, B. C. Hemphill, C. W. Rich and L. W. Rich.

**Laurel—Cotton Mill.**—Laurel Cotton Mills will double its 5000-ring-spindle 160-loom plant.

**Vicksburg—Lumber Mills, etc.**—George T. Houston & Co. of Chicago, Ill., recently reported as having purchased properties at Vicksburg and to establish plant for manufacture of lumber, will shortly begin work on same. Proposed plant will include four band-saw mills, gang and resaws, veneer saws and woodstock factory. Factory building, power plant and machine shops will be built of brick, stone and iron, and be fireproof. Power-house will include two 1000-horsepower engines with separate attachments, and a battery of eighteen boilers with 150 pounds steam pressure. Capacity of plant will be 400,000 feet of lumber, board measure, per day. Dabney & McCabe of Vicksburg are company's legal representatives.

**West—Quarries, Saw-mills, etc.**—Southern Stone & Development Co., reported recently incorporated, etc., will develop stone quarries, erect saw-mills, etc. Capital is \$15,000. W. W. Cain is secretary.\*

#### MISSOURI.

**Brookfield—Electric-light Plant.**—H. H. Stephens of Macomb, Ill., will obtain franchise for electric-light plant.

**Butler—Elevator Company.**—Incorporated: Cannon-Weiner Elevator Co., capital \$2000, by Max Weiner, Walker Cannon and others.

**Chillicothe—Electric-light Plant.**—The city has voted \$20,000 for an electric-light plant. Address "The Mayor."

**Jameson—Telephone Company.**—Chartered: Jameson Telephone Co., with capital of \$3500, by A. J. Fuller, W. T. Stovall, J. F. Brown and others.

**Kansas City—Coal and Coke Company.**—Manufacturers' Coal & Coke Co. has been chartered, with capital stock of \$50,000, by T. E. Shurr, N. L. Tromanhouser and J. D. White.

**St. Louis—Belting and Supply Company.**—St. Louis Belting & Supply Co., with capital stock of \$10,000, has been incorporated by Daniel Klauber, John Klauber and B. B. Steiner.

**St. Louis—Cotton Mill.**—The company to build cotton mill recently reported is now being formed. As soon as definite announcements can be made the St. Louis Commission Co. will be able to inform.

**St. Louis—Express Company.**—Chartered: St. Louis Express Co., with capital of \$3000, by R. F. Walton, W. Althous and Robert Dickson.

**St. Louis—Machinery Company.**—Chartered: Sebastian-Clarke Machinery Co., with capital stock of \$12,000, by H. H. Clarke, C. Sebastian and F. T. Clarke.

**St. Louis—Construction.**—Chartered: Gasconade Railway Construction Co., with capital stock of \$50,000, by David R. Francis, Jr., Chas. H. Hiemenz, Charles Gilbert and others.

**Tina—Oil Company.**—Chartered: Carroll Oil Co., with capital stock of \$100,000, by C. W. Nuss, Lewis Blakeley and others.

**West Plains—Zinc Mines, etc.**—Chartered: Renfrow Zinc Oxide Co., with capital stock of \$50,000, by W. C. Renfrow, Daniel Dwyer, M. B. Clarke and others. Company is erecting zinc oxide plant, and has awarded contracts.

#### NORTH CAROLINA.

**Asheville—Broom Factory.**—It is probable that a broom factory will be established. John L. Lingerfelt, 124 Woodfin street, is interested.\*

**Charlotte—Quarrying and Mining.**—Chartered: Georgia-Carolina Quarry Co., with capital stock of \$25,000, for conducting general quarrying and mining business. B. B. Troy of Charlotte, S. R. Troy of Asheville and R. M. Johnson of Knoxville, Tenn., are incorporators.

**Concord—Water Supply.**—City will vote June 4 on issuance of \$150,000 bonds for improvements in water supply, sewerage, streets, etc. Address "The Mayor."

**Elizabeth City—Silk Mill.**—P. H. Williams and the Riverside Land Co. are interested in the proposed organization of a \$50,000 company to build a silk mill.

**Grayson—Cotton Mill.**—Southern Milling Co. recently purchased 500 acres of land near Grayson Springs and will, it is reported, establish a cotton mill, and contemplates constructing 40-foot dam for furnishing power. J. P. Carrioco of Grayson is said to represent company.

**Greensboro—Electric-power Plant.**—M. D. Barr and John Keer of New York and associates have incorporated the Greensboro Electric Co. for construction of a street railway and for furnishing electric-power to companies and for lighting purposes.

**Henderson—Rope and Cordage Factory.**—The establishment of a rope and cordage factory is contemplated. Address J. W. Halstead.\*

**Henderson—Ice Plant.**—Edenton (N. C.) Ice & Cold Storage Co. will build a 30-ton ice plant at Henderson.

**Henderson—Artesian Well.**—Seaboard Knitting Mills is reported as to drill for artesian water, and as having ordered outfit.

**High Point—Water-works.**—The city has named H. E. Knox consulting engineer and W. R. Richardson head of construction department in charge of installing the new water-works.

**Lincolnton—Cotton Mill.**—John Rudisill Manufacturing Co. has organized to build a cotton mill of 1500 spindles. J. M. Roberts of Shelby, N. C., is secretary-treasurer.

**Marshville—Flour Mill.**—J. C. Bailey & Son have placed order for a 60-barrel roller flour mill.

**Mountain Island—Cotton Mill.**—Mountain Island Manufacturing Co. will replace that portion of its mill destroyed and machinery damaged by flood.

**Murphy—Telephone Company.**—Chartered: Cherokee Telephone Co.

**Raleigh—Ice-cream Plant.**—California Fruit Store has installed electric plant for increasing capacity of its ice-cream plant.

**Raleigh—Harness Factory.**—Wyatt Harness Co. will enlarge its factory.

**Raleigh—Telephone System.**—Interstate Telephone & Telegraph Co. (principal office, Durham, N. C.) will install new switchboard of 1200 drops capacity at Raleigh.

**Rockingham—Electric-light Plant.**—The town has voted bonds for erection of electric-light plant; will install thirty arc and 600 incandescent lights. Address H. S. Ledbetter, chairman.

**Smithfield—Woodworking Factory.**—Holt Hardware & Buggy Co., reported during the week as organized, etc., will also conduct general woodworking and blacksmith shops in connection with its buggy manufacturing, etc.

**Wilmington—Shirt Factory.**—Willard Bag & Manufacturing Co. will remove its plant to new building recently acquired and improved, and will add the manufacture of shirts and overalls, investing about \$15,000.

**Windsor—Electric-light Plant, Cotton Gin-**

**nery and Peanut Factory.**—R. C. Bazemore and associates have organized to build a large cotton ginnery, peanut factory and electric-light plant.

**Windsor—Water Supply.**—The town commissioners contemplate drilling an artesian well for water supply; St. Leon Scull, mayor.

**Winterville—Cannery.**—Winterville Cannery Co. has been organized to establish cannery.

#### SOUTH CAROLINA.

**Charleston—Marine Railroad.**—Riverside Iron Works contemplates constructing marine railroad in connection with enlargements decided upon for boiler plant.

**Charleston—Water-works.**—American Pipe Manufacturing Co. of Philadelphia, Pa., has received contract for a new water-supply system for Charleston which will provide 5,000,000 gallons per day.

**Cheraw—Mercantile.**—Chartered: Globe Company, capital \$5000, by J. C. Whitley and others.

**Florence—Tobacco Company.**—Chartered: C. A. Gregory Tobacco Co.; J. S. Meade, president; C. A. Gregory, vice-president; A. W. Douthitt, secretary and treasurer; capital stock \$5000.

**Jonesville—Knitting Mill.**—Jonesville Knitting Mills will enlarge by erection of brick building 60x147 feet, two stories, with dye plant 35x60 feet and engine and boiler room; will install 100 more automatic knitters, etc.; cost of improvements, about \$25,000.\*

**Marion—Tobacco Stemmary.**—Chartered: Marion Stemmary Co., capital \$8000, by W. H. Coass, W. J. Montgomery and F. D. Bryant.

**Mullins—Tobacco Stemmary.**—W. A. Gray will establish tobacco stemmary; building, 75x156 feet, now erecting. Nearly all machinery has been bought.\*

**Walhalla—Lumber Mill.**—D. H. Rowland will establish lumber mill.

**Walhalla—Electric-light Plant and Water-works.**—J. W. Shelor has obtained franchise for construction of water-works, as recently reported, and will be granted franchise for erection of electric-light plant. He will organize company for operating both plants.

**Williston—Artesian Well.**—The town has appropriated \$1200 for sinking an artesian well to secure water supply. Address "The Mayor."

#### TENNESSEE.

**Bristol—Street Improvements and Bridges.**—The city will soon issue \$20,000 of bonds for the street improvements and bridges previously reported. Address H. E. Jones, chairman finance committee.

**Centerville—Stave and Lumber Company.**—Julius Kaufman, Emanuel Gerli, Isidor Hollman and others have incorporated the Kaufman Stave & Lumber Co., with capital stock of \$15,000.

**Chattanooga—Fertilizer Factory.**—Adair & McCarty of Atlanta, Ga. (A. G. Adair, G. W. McCarty and J. D. McCarty), will erect and equip a fertilizer factory in Chattanooga with an annual capacity of 10,000 tons. Chickamauga Fertilizer Works will be incorporated to operate same.

**Chattanooga—Cotton-oil Company.**—G. N. Henson, W. F. Hutcheson, W. B. Riddell, J. L. Caldwell and others have incorporated the Florida Cotton Oil Co., with capital stock of \$100,000.

**Chattanooga—Bridge.**—Rumor states that the Chattanooga Electric Railway will construct a bridge.

**Chattanooga—Electric-light Plant.**—Contract awarded to F. P. Sweet and W. C. Lee for erection of the proposed county electric-light plant.

**Cleveland—Electric-light Plant.**—A company has been formed and purchased the Cleveland Water & Electric Light Co.'s plant; will change location of and improve same.

**Cumberland County—Saw-mill.**—M. C. McCorkle & Sons of Big Stone Gap, Va., have purchased 3000 acres of timber land in Cumberland county, and will erect saw-mill to cut lumber.

**Huntingdon—Cotton Mill.**—J. M. Wright and others propose organizing company to build \$50,000 cotton mill.

**Jameson—Oil Wells.**—L. T. Smith & Co. will drill for oil.

**Johnson Stand (not a postoffice)—Saw-mill.**—J. L. Horn of Richmond, Ohio, will build saw-mill near Johnson Stand to cut timber on 550 acres of land; capacity will be 15,000 feet daily.

**Knoxville—Ochre Deposits.**—J. C. Sterchi has discovered gray ochre in Knox county, and will have it tested at once with a view to installing crushing and clearing machinery for developments.

**Knoxville—Brick Works.**—Chartered: South Knoxville Brick Co., capital stock \$25,000, by E. G. Oates, W. B. Sullins, H. B. Branner, C. M. Cooley and Chas. T. Oates, Jr., to manufacture bricks; company will operate plant recently bought by E. G. Oates; capacity will be increased from 40,000 to 300,000 daily.

**Memphis—Furniture Company.**—Chartered: National Furniture Co., with capital stock of \$5000, by George Harsh, E. A. Long, B. M. Brown and others.

**Memphis—Wagon-material Factory.**—Houston & Curtis, 737 and 738 Marquette Building, Chicago, will establish wagon-material factory in Memphis, as recently reported; building will be two stories, 60x120 feet, with brick boiler-house, equipped with latest machinery, including complete bending outfit.

**Monterey—Coal Mines.**—Crawford Coal & Iron Co., reported lately as opening new coal mines, expects to have an output of 500 tons per day capacity, which will be increased later; R. J. Moserip, superintendent.\*

**Nashville—Water Supply.**—Chartered: Waverly Water Supply Co., with capital stock of \$10,000, by A. E. Justice, J. P. Cowen, H. H. Harris, W. N. McCrory and others.

**Nashville—Electric-light Plant.**—T. J. Mooney & Co. have contract for equipping city electric-light plant at \$92,000.

**Nashville—Grain Storage.**—Chartered: Nashville Grain & Storage Co., \$25,000 capital stock, by L. Fugate, S. B. Hart, C. D. Smith, W. C. Myers and J. T. Fugate.

**Polk County—Coal Lands.**—Simon Krebs & Son of Somerset, Pa., are said to contemplate developing coal lands in Polk county.

**West Nashville.**—Chartered: Empire Guano Co., with capital stock of \$100,000, by A. C. Read, J. S. Campbell, John A. Bell and others.

#### TEXAS.

**Angleton—Oil Wells.**—Oil Springs Heights Oil Co., reported recently as incorporated, has leased and will develop 5000 acres of oil lands in Brazoria county. Alf. H. H. Tolar is president.\*

**Annona—Oil Mill.**—Chartered: Annona Cotton Oil Co., with capital stock of \$10,000, by L. C. Stiles, J. B. Lassiter and D. W. Cheatham.

**Beaumont—Oil Wells.**—Chartered: Diamond Oil Co., with capital stock of \$300,000, by B. F. Looney of Greenville, R. D. Gage, J. H. Rowen of Pecos and others.

**Beaumont—Oil Wells.**—Sabine Tram Oil Co. has been incorporated, with capital stock of \$500,000, by Geo. W. Smyth, Frank Alvey, Chas. E. Walden and others.

**Beaumont—Oil Wells, etc.**—Chartered: Hawkeye Consolidated Oil & Pipe Line Co., with capital stock of \$500,000, by F. S. Ellsworth, J. H. Carleton of Iowa Falls, Iowa; G. H. Richardson of Belmont, Iowa; C. M. A. Fell of Beaumont and others.

**Beaumont—Oil Wells.**—Chartered: Nipper Oil Co., with capital stock of \$500,000, by W. L. Stowe, Clarence Mackay, Peter D. Martin and others, all of New York city.

**Beaumont—Oil Lands, etc.**—Hon. Hoog W. Campbell of Houston, Judge A. S. Fisher of Georgetown and J. A. Swayne of Fort Worth have acquired oil properties at Beaumont for \$600,000 and will organize a new company, which will combine the production of crude petroleum with the manufacture of commercial iron from the deposits at New Birmingham.

**Beaumont—Oil Wells.**—Chartered: Walton Drilling Co., capital stock \$25,000, by James E. Bowen, R. D. Gage of Pecos, Texas; A. C. Mattock of Fort Worth and others.

**Beaumont—Oil Wells.**—Chartered: Planters' Crude Oil Co., capital stock \$300,000, by George C. O'Brien, L. B. Pipkin, J. N. Gilbert and others.

**Beaumont—Oil Wells.**—Chartered: Arline Oil Co., capital stock \$300,000, by E. D. Beall, T. J. Griffin, M. D. Wilson of Galveston, Albert Godchaux, E. V. Benjamin and F. O. Bertrand of New Orleans and Samuel Goldsmith of Beaumont.

**Beaumont—Oil Wells.**—The Byrd Syndicate, Limited, of London, England, capital stock \$50,000, has been granted permit to do business in Texas. Syndicate is said to have leases on 63,000 acres of land, which it will develop for oil.

**Beaumont—Drilling.**—Texas Rotary Drilling Co., with capital stock of \$10,000, has been incorporated by C. D. Reeves and others.

**Beaumont—Oil Wells.**—Chartered: Lone Acre Oil Co., with capital stock of \$100,000, by L. P. Norvell, S. W. Pipkin, I. D. Paik and others.

**Beeville—Oil Wells.**—A company has been organized, with capital stock of \$100,000, for development of oil properties, by E. H. Nall.



men, president; T. J. Hart, secretary, and others.

Brandon—Gin.—Eclipse Gin Co., with capital stock of \$3000, has been incorporated by John H. Davis, J. M. Ware and J. W. Spalding.

Brenham—Oil Wells.—Chartered: Heber Stone Oil & Mining Co., capital stock \$500,000, by Heber Stone, H. K. Harrison and others.

Bridgeport—Coal Mining.—Bridgeport Coal Co. will increase capital stock from \$100,000 to \$200,000.

Bryan—Oil Wells.—Incorporated: Beaumont & Brazos Valley Oil Co., capital stock \$40,000, by A. D. McCunnio, G. M. Brandon, B. Shisa and others.

Dalby Springs—Mineral Springs.—Chartered: Dalby Mineral Springs Co., capital stock \$7500, by N. B. Massenburg, W. W. Whyback and W. E. Massenburg, Jr.

Dallas—Plow Works.—Chartered: Southern Plow Co., capital stock \$10,000, by A. Rosenbaum, I. Rosenbaum, E. Rosenbaum and others.

Dallas—Mercantile.—Chartered: Rosser Mercantile Co., by Henry D. Lindsley and others; capital stock \$20,000.

Dawson—Oil Mill.—Chartered: Dawson Cotton Oil Co., with capital stock of \$25,000, by W. T. Westmoreland, B. W. D. Hill, J. A. Buckingham and others.

El Paso—Smelter, etc., Company.—The company reported lately as organized by J. W. Eubanks and others is the Smelter & Quarry Railway Co.

El Paso—Oil Wells.—Chartered: Beaumont Western Oil Co., capital stock \$250,000, by Willard Burton of Fort Worth, E. O. Price of Big Springs, C. W. Merchant of Abilene and others.

Fort Worth—Oil Wells.—Chartered: Aroma Oil Co., capital stock \$30,000, by N. H. Lassiter, A. J. Burton and others.

Fort Worth—Packing-house.—It is reported that J. Ogden Armour of Chicago, Ill., is investigating with a view to erecting a \$500,000 packing plant in Fort Worth. W. J. Boaz, Winfield Scott, H. C. Holloway and others of Fort Worth are interested.

Galveston—Oil Wells.—Lucky Dime Oil Co., with capital stock of \$250,000, has been incorporated by Jas. E. Moore, Newton J. Skinner, Daniel J. Moore and others.

Galveston—Mining.—Chartered: Aaron Mining, Oil & Gas Co., with capital stock of \$50,000, by Joseph H. Wilson, James Pendergrast, B. A. Cook and others.

Galveston—Oil-pipe Lines.—George Sealy, Chas. Fowler, John Sealy, W. A. McVittie and R. W. Smith have received franchise to use the streets for laying pipe lines to carry natural oil and gas.

Galveston—Oil Wells.—Texas Oil Land & Investment Co., reported incorporated last week, has elected O. H. de Lamorton, president; W. J. Steinbrink, secretary, and R. L. Johnson, treasurer. Company has bought and is buying lands for oil developments, etc.; capital stock \$150,000; office at 2005 Post-office street.\*

Galveston—Oil Wells.—Chartered: Gladys Oil Co., with capital stock of \$250,000, by D. J. Moore, N. J. Skinner, J. E. Moore and others.

Glen Flora—Sugar and Syrup Mill.—C. H. Waterhouse of Texas, recently reported to establish a sugar and syrup mill at Glen Flora, has, with W. T. Liljegen, F. W. Gage and John H. Hulst of Pittsburg, Pa., incorporated the Pittsburg-Glen Flora Sugar Co. to operate the mills.

Hearne—Oil Wells.—New York & Hearne Oil & Milling Co. has been chartered, with capital stock of \$100,000, by H. B. Easterwood, P. T. Brady, E. M. Well and others.

Hempstead—Oil Wells.—Waller County Oil Co. has been organized, with A. G. Lipscomb, president; T. T. Erwin, vice-president, and R. Montgomery, secretary.

Houston, Texas—Building.—Chartered: Auditorium Building Co., with capital stock of \$5,000, by J. W. House, P. R. Carson and William Christian.

Houston—Oil Wells.—Enterprise State Oil, Coal & Iron Co. has been incorporated, with capital stock of \$5,000,000, by Charles Dillingham of Houston, Robt. L. Henry of Chicago, W. A. Rule of Kansas City and others.

Itasca—Mercantile.—Thomas Brooks and others have incorporated Brooks-Roper Mercantile Co., with capital stock of \$20,000.

Kaufman—Oil Mill.—Kaufman County Cotton Oil Co. will increase capital stock from \$20,000 to \$100,000.

Kemp—Telegraph System.—Texas Telegraph & Telephone Co., Dodge Mason, president and general manager, will extend its lines to Nacogdoches and Beaumont.

La Porte—Oil Wells.—Chartered: Washington Oil Co., with capital stock of \$50,000, by M. E. Hill and others.

Marshall—Oil Wells.—Chartered: East Texas Standard Oil Co., Marshall and New York city, capital stock \$200,000, by Herbert Sackey, Gen. W. J. Hendrick, Alfred M. Lamar, Webster Blocker and Archibald Gracie, all of New York city; Joseph Lake, C. D. Lancaster and others of Marshall.

Mt. Pleasant.—Chartered: Peterman Mineral Springs Co., with capital stock of \$5000, by H. W., W. A. and B. B. Peterman.

Orange—Oil Wells.—Wingate Oil & Mineral Co., with capital stock of \$50,000, has been incorporated by R. H. Wingate of Orange and others.

Paris—Mercantile.—Chartered: Burton-Peel Dry Goods Co., with capital stock of \$100,000, by W. G. Burton and others.

Piano—Milling.—Chartered: Piano Milling Co., capital stock \$40,000, by M. E. Kauffman, H. G. Stinnett and J. G. Puterbaugh.

Port Arthur—Oil Refineries, Tanks, etc.—J. M. Guffey Petroleum Co. (reported during week under Beaumont as chartered with \$15,000,000 capital) includes in its plans for development of Beaumont oil fields the erection of large refineries and tanks at Port Arthur, where the exporting station will be located. Contract was awarded this week for twenty oil tanks of 50,000 barrels capacity each; twenty tanks of same size were already under contract; most of the total to be located at Port Arthur; most of the oil will be piped from Beaumont, the remainder to be shipped in tank cars. J. C. McDowell will be general manager; Andrew W. Mellon, treasurer, is of T. Mellon & Sons, bankers, Pittsburg, Pa., in whose care inquiries can be addressed.

Rosebud—Lumber Company.—Chartered: Rosebud Lumber Co., with capital stock of \$25,000, by W. I. McReynolds, Frank H. Davis and J. T. Davis.

San Antonio—Instalment Company.—Chartered: Star Instalment Co., with capital stock of \$12,000, by B. G. Lane and others.

San Antonio—Oil Wells.—W. P. Hardwick of Fort Worth and others will purchase and develop oil properties near San Antonio.

San Antonio—Oil Wells.—Texas Oil Co., recently organized by New York parties and E. H. Russell of San Antonio, has purchased for \$70,000 and will develop 9000 acres of land near San Antonio.

Sherman—Gin and Mill.—Chartered: Scott & McKown Gin & Milling Co., with capital stock of \$20,000, by W. M. Scott, S. I. McKown and W. A. McKown.

Sulphur Springs—Ice Company.—Chartered: Crystal Ice Co., with capital stock of \$30,000, by J. B. Murphy, P. H. Foscoe and Max Yesner.

Taylor—Oil Company.—Chartered: Taylor & Dayton Oil Co., with capital stock of \$250,000, by John P. Sturgis, John F. Black, D. F. Smith and others.

Taylor—Oil Wells.—Dayton Oil Co., with capital stock of \$250,000, has been incorporated by W. C. Wright, F. A. Allison, B. C. Briggs and others.

Troupe—Oil Wells.—A \$50,000 company has been organized, with J. W. Gaston, president, and G. B. Whitley, secretary, to drill for oil.

Uvalde—Oil Wells.—Chartered: Uvalde Oil Co., with capital stock of \$25,000, by J. F. Shupson, W. P. Dermody, Ira Havins and others.

Van Vleck—Van Vleck Town Co. will sink an artesian well for supplying the town with water.

Velasco—Oil Storage Plant.—John D. Stewart of Ohio is representing Eastern capitalists who propose establishing oil storage tanks and other exporting facilities at or near Velasco. Mr. Stewart is now at Rusk and Main avenues.

Velasco—Rice Irrigation.—Guy M. Bryan, Jr., of Bryan will construct irrigation plant for experimental rice cultivation near Velasco.

Waco—Brokerage.—Incorporated: Waco Brokerage Co., capital stock \$10,000, by A. J. Baum, J. H. Pickens and E. T. Young.

Waco—Gin and Compress.—American Cotton Co. will rebuild its gin and round-bale compress lately burned at Waco; D. C. Ball, general manager, 27 William street, New York city.

Waxahachie—Telephone System.—Chartered: Ellis County Telephone Co., with capital of \$2000, by J. M. Maloney, J. W. Miles and C. W. Simpson.

Weatherford—Oil Wells.—Chartered: Beaumont Oil Co., capital stock \$150,000, by G. M. Bowie, G. A. Holland, M. C. Cameron and others.

Wichita Falls—Oil Wells.—Chartered:

Texas Oil & Gas Co., with capital stock of \$20,000, by Frank Kell, W. C. Heath, A. D. Anderson and others.

Winnsboro—Cotton-oil Mill.—Winnsboro Cotton Oil Co., reported recently as incorporated, will begin at once erection of buildings, and has contracted for its machinery.

#### VIRGINIA.

Barton Heights—Water-works, etc.—City has voted negatively on proposed issuance of bonds for \$10,000 to improve water supply, establish fire plugs and improve streets. Address "The Mayor."

Danville—Overall Factory.—H. S. Lanier has formed the Lanier Manufacturing Co. and has secured building and machinery for overall factory to be operated by electricity.

Edinburg—Creamery.—Shenandoah Valley Creamery & Dairy Co. has been organized for conducting creamery.

Grayson—Cotton Mill.—Report states that capitalists have bought site at Grayson sulphur springs for a large cotton mill, and will erect plant; also build dam to develop water-power.

Lynchburg—Tobacco Factory.—Mrs. John W. Carroll is having plans prepared for tobacco factory building to be occupied by J. R. Kyle & Co.; building to be of brick and stone, 54x136 feet, with 42x50-foot ell.

Lynchburg—Filtering Plant.—The "City Engineer" is at work on plans for the proposed filtering plant.

Lynchburg—Shoe Factory.—George D. Witt Shoe Co., previously reported to erect shoe factory, has awarded contract for erection of building to J. E. Parrish; building will be five stories, 46x140 feet.

Norfolk—Water-works.—Plant of the Portsmouth & Suffolk Water Co. has been sold to Boston and New York capitalists for \$650,000. This company and the Norfolk and Berkley & Norfolk County water companies will consolidate, with a capital of \$1,500,000.

Richmond—Sheep-dip Factory.—Laidlaw, Mackill & Co. of Glasgow, Scotland, will remove their Scotland sheep-dip plant to their branch factory at Richmond and maintain there the entire manufacturing plant; offices will remain at Glasgow. Address at Richmond, 3400 Williamsburg avenue.

Richmond—Tobacco Factories.—Universal Tobacco Co., which organized recently, has a capital stock of \$12,000,000, and will manufacture smoking tobacco, cigarettes, etc. Probably several large established factories will be purchased for initial plant. Wm. H. Butler is president.

Roanoke—Furnace.—It is reported that the Century Union Mills & Furnace Co. will be formed in Philadelphia, Pa., to put the West End furnace at Roanoke in operation.

Roanoke—Commission.—Chartered: Roanoke Commission Co., capital \$2000, and W. O. Dupuy, manager.

#### WEST VIRGINIA.

Charleston—Baking-powder Manufacturing.—Chartered: American National Manufacturing Co., capital stock \$1,000,000, by Orris Reynolds, J. H. Shrewsbury, N. W. Noyes, B. C. Barbour and N. Hutchinson; office at No. 10 Arcade Building; purpose, to manufacture baking powder and deal in chemicals.

Charleston—Carbonating Plant.—Capital Carbonating Co., formed recently, has equipped a modern plant for manufacturing carbonated beverages.\*

Charleston—Veneer Factory.—National Veneer Co., recently organized, will begin at once erection of buildings, main one of which will be 150x60 feet, three stories, of brick; two-story brick kiln 80x40 feet. Address J. W. Roche, manager.\*

Charleston—Drug Company.—R. G. Hubbard and others have incorporated \$40,000 company to conduct drug business; building may be erected.

Duhring—Coal and Coke Company.—The company reported recently as organized at Duhring is the Crystal (not Capital) Coal & Coke Co.; proposed plant will cost \$100,000. Address D. M. Taylor at Crane, W. Va.

Huntington—Stove Foundry.—Chartered: Huntington Stove & Foundry Co., with capital stock of \$25,000, by A. W. Werninger, W. A. Ullman, D. A. Mossman and others.

Martinsburg—Trousers Factory.—Shenandoah Pants Factory contemplates enlargements.

Middlebourne—Bridges.—County court contemplates contracting for construction of three bridges. Address "County Clerk."

Petersburg—Tannery.—Brighton Tannery, which was recently purchased by the United States Leather Co., has been put in operation. John W. Barbee of Brooklyn, N. Y., will prepare plans for complete remodeling of plant with a view to increasing capacity.

Richwood—Clothespin Factory.—A. W. Dodge Clothespin Manufacturing Co., organized with A. W. Dodge, president, will erect clothespin factory; main building will be 40x126 feet, and capacity of factory will be 600 cases of five gross each per day.

Sistersville—Carriage Factory.—J. A. Morrison has contracted for 25x36-foot addition to his carriage factory.

Wheeling—Mercantile.—Chartered: South Side Provision Co., capital \$10,000, by Chas. Shengler and others.

Wheeling—Construction Company.—Chartered: Glanini Construction Co., with capital stock of \$50,000, by Joseph Glanini and Phil. Glanini of Allegheny, Pa.; James McLean of Pittsburg, Pa., and others.

Wheeling—Brewery and Ice Plant.—Uneda Brewing Co. has been incorporated, with capital stock of \$300,000, by Wm. F. Schempf, A. A. Schrum, Joseph Korn, C. W. Conner and Wm. F. Bayhan. Brewery of 40,000 barrels per year and a 100-ton ice plant will be erected. Address C. W. Conner.\*

Wolf Summit—Coal Mines.—H. D. Bulkley of Baltimore, Md.; Geo. F. Craig and George Warner of Philadelphia, Pa., have bought control in 3300 acres of coal land near Wolf Summit and organized Wolf Summit Coal Co. to develop; capital is \$350,000.

Wolf Summit—Coal Lands.—N. T. Arnold of Ridgway, Pa., and associates have purchased 10,000 acres of coal lands in Barbour county, West Virginia, and a like acreage of Pittsburg coal near Wolf Summit, in Harrison county, and contemplate the purchase of other undeveloped coal land with a view to developing same.

#### BURNED.

Appomattox County, Va.—Hancock's flour mill destroyed by recent storm. Address C. W. Hancock at Lynchburg.

Livingstone, Tenn.—Bilbre & Kelsling's dryhouse.

Llano, Texas.—Chas. Schuwirth's cotton gin; loss \$1000.

Louisville, Ky.—Louisville Veneer Mills damaged; loss \$10,000, principally dry-kiln.

Vicksburg, Miss.—Seed shed of Hill City Oil Mills; estimated loss \$10,750.

Whitecastle, La.—Babin Bros.' gin; loss \$2300.

#### BUILDING NOTES.

Abbeville, Ga.—Building.—A. I. Webb has let contract to C. W. Phillips for erection of brick building.

Aiken, S. C.—Dwellings.—Fred Hahn has let contract to George Bros. for erection of dwelling. F. S. Wilcox let contract to same firm for \$10,000 residence.

Alexandria, La.—Power-house.—F. M. Welch, mayor, will open bids June 4 for furnishing material and constructing brick building for power-house for city electric-light and water-works plant. Bids must be accompanied by certified check for \$250. Plans and specifications and forms of contract and bond at office of Ira W. Sylvester, city engineer. Usual rights reserved.

Anniston, Ala.—Hotel.—Construction of a hotel is contemplated, and probably W. H. Zinn can inform.

Atlanta, Ga.—Building.—Plans and specifications have been approved and accepted for the proposed Marist College to be erected at a cost of \$30,000.

Atlanta, Ga.—Building.—Hoke Smith will erect a brick and terra-cotta warehouse building, five stories, to cost \$50,000, equipped with elevator and steam heat.

Atlanta, Ga.—Building.—Bruce & Morgan have completed plans for the \$200,000 office building previously reported to be erected by the Century Building Co.

Baltimore, Md.—Factory Building.—Geo. Bunnecke & Son has contract at about \$35,000 for erection of factory addition for Crown Cork & Seal Co.

Baltimore, Md.—Dwellings.—Wm. F. Flagg has obtained permit to erect twenty-six two-story dwellings to cost \$23,400; plans by himself.

Baltimore, Md.—Factory Building.—Hammond Ice Co. awarded contract to John A. Sheridan for erection of factory building 120x240 feet, forty feet high.

Baltimore, Md.—Apartment Store.—Albert A. Brager has had plans made by Jackson C. Gott for erection of a five-story brick, stone and iron addition to department store.

Baltimore, Md.—Dwelling.—Gen. Alfred E. Booth has had plans made by Joseph Evans Sperry for erection of dwelling.

Beaumont, Texas—Depot, etc.—Atchison, Topeka & Santa Fe Railway will build new



freight depot at Beaumont and make other improvements; H. U. Mudge, general manager, Topeka, Kans.

Beaumont, Texas.—Business Buildings, etc. U. O. Long will prepare plans for \$50,000 office building for J. P. Keith; structure to have brick, stone, steel and iron construction, electric elevator and lights, gas lighting, hot-water heating, fire escapes, etc. Mr. Long is also preparing plans for proposed hotel of J. B. Goodhue; also for \$65,000 apartment-house, \$300,000 office building and other structures.

Birmingham, Ala.—Dwellings.—E. B. Tompkins has permit for erection of twenty-three one-story frame dwellings to cost \$18,400 for an Atlanta (Ga.) party.

Brewton, Ala.—Courthouse.—It is reported that Escambia county will build a \$30,000 courthouse. Address "County Clerk."

Catonsville, Md.—Bank Building.—First National Bank will erect office building 26x60 feet, electric lights, steam heat, vaults, 250 safe-deposit boxes, etc.

Chattanooga, Tenn.—Warehouse.—H. L. Probasco has awarded contract to Cox & Ryder for erection of a \$3500 warehouse.

College Station, Texas.—Building.—L. L. Foster, president, will open bids May 30 for material and construction of one-story brick building 60x70 feet at Agricultural and Mechanical College. Blank form of proposal furnished upon application. Certified check to about 5 per cent. of bid must accompany proposals. Usual rights reserved.

Columbia, S. C.—Building.—Frank P. Milburn will prepare plans and specifications for a brick addition three stories and 120 feet long to main building of State board of control.

Columbia, S. C.—Warehouse.—The State dispensary awarded contract to James F. Troy for new warehouse after plans by Frank P. Milburn.

Columbus, Ga.—Warehouse.—Bradley Company has let contract to Contractor Blair for erection of warehouse.

Columbus, Ga.—Warehouse.—Eagle & Phoenix Mills will build warehouse to cost \$30,000; plans now preparing.

Columbus, Ga.—Warehouse.—Fletcher & Bullock have purchased Georgia warehouse, and will expend \$10,000 in improving same.

Crowley, La.—Residence.—J. D. Marks is having plans made by F. R. Kemp for erection of a \$3000 dwelling.

Dumas, Ark.—Bank Building.—Dumas Bank, J. M. Kitley, secretary, will erect bank building.

East Lake, Ala.—School.—The town will erect a \$16,000 school building. Address "The Mayor."

El Paso, Texas.—Warehouses.—Mexican Central Railroad is reported as having purchased property in El Paso on which it will erect large warehouses; property was purchased through B. F. Hammett, Jr., of El Paso, who may possibly give information. H. Clay Pierce of St. Louis, Mo., is a director of the road.

Ensley, Ala.—City Hall.—Gallagher & Hopkins have contract at \$12,000 for erection of City Hall, previously reported.

Fort Worth, Texas.—Sanitarium.—A company has been organized, with capital stock of \$50,000, for erection of the Protestant Sanitarium; Dr. E. D. Capps, secretary.

Geneva, Ala.—Warehouse.—Geneva Gln & Fertilizer Co., J. A. Jenkins, secretary, will establish warehouse.

Griffin, Ga.—Store Building.—Bass Bros. Co. will award contract to S. H. Cunningham for erection of a two-story store building 60x150 feet.

Hapeville, Ga.—Reformatory.—Contract for erecting reformatory recently mentioned has been given to J. A. Fisher at \$14,750.

Huntsville, Ala.—Cottages.—Herbert Carroll is preparing plans and specifications for two cottages for J. N. Mazza.

Jackson, Miss.—Hotel.—Frank B. Neal, R. V. Ratchford, A. Virden, Thomas Gale and others have incorporated the Jackson Hotel Co., with capital stock of \$75,000, and privilege of increasing to \$100,000.

Jacksonville, Fla.—Building.—Plans have been completed for rebuilding the Kapper & von Dohlen Building, to be of brick, 105x70 feet, and cost \$17,000; Alfred Rodd, architect.

Jacksonville, Fla.—Stores, etc.—Porcher L'Engle has begun construction of two-story brick 50x100-foot business structure. R. M. Liggett contemplates erecting two-story brick building 55x106 feet.

Jacksonville, Fla.—Office Building, etc.—National Bank of Jacksonville will erect new office building, plans to be by Leon Beaver of Knoxville, Tenn.; structure to have fire-proof vaults, 1500 safety-deposit boxes, steel

cages, etc. Charles Blum has had plans made for two-story 60x75-foot building for stores and flats. Mrs. John Menzies will erect \$3000 dwelling. W. B. Barrett will erect residence after plans by Leon Beaver of Knoxville, Tenn.

Jacksonville, Fla.—Buildings.—Kapper & von Dohlen have awarded contract to O. P. Woodcock for erection of press-brick structure to cost \$20,000. G. L. Norman of Atlanta, Ga., has prepared plans for new four-story brick and terra-cotta building to cost \$70,000 for S. P. Holmes.

Jacksonville, Fla.—Schools.—Efforts will be made at once to secure means for rebuilding the schools destroyed in recent fire. Address "County Clerk."

Jasper, Ala.—School.—Bids will be opened June 6 for erection of school, for which \$12,000 is available; plans by R. L. Jones, Atlanta, Ga.

Johnson City, Tenn.—Business Block.—J. T. Linville & Co. will erect brick business house for H. H. Crouch.

Knoxville, Tenn.—Office Block.—Dr. C. Deaderick and E. J. Sanford will erect office block to cost about \$75,000.

Louisville, Ky.—Bathhouse.—Kenneth McDonald has made plans for public bathhouse.

Louisville, Ky.—Hospital.—Sisters of St. Francis have obtained permit for erection of proposed \$50,000 hospital, for which D. X. Murphy prepared plans lately; stone building, three stories high.

Louisville, Ky.—Depot.—Southern Railway Co., H. B. Spencer, general manager St. Louis & Louisville lines, St. Louis, Mo., will build new passenger station at Louisville after plans by Frank P. Milburn of Columbia, S. C.

Lynchburg, Va.—Casino.—Smott & Shena have contract to build casino after plans by E. G. Frye.

Marlin, Texas.—Schools.—The city will, during the year, issue \$34,000 of bonds for school buildings and fire protection; Wm. Shelton, mayor.

Melvale, Md.—Dwelling.—Columbus O'D. Lee of Baltimore will build residence; plans by Ellicott & Emmart, also of Baltimore; contract about let.

Memphis, Tenn.—Warehouse.—Fred Orgill will not erect six-story building recently reported until next April, but will erect in July a three-story brick warehouse 60x165 feet, with electric freight elevator, etc.

Milford, Texas.—Hotel.—Chartered: Milford Hotel & Sanitarium Co., capital stock \$15,000, by W. T. M. Dickson, Z. T. Bundy, N. R. Rutherford and others.

Milledgeville, Ga.—Building.—J. W. McMillan has contract for erection of Y. M. C. A. building.

Morristown, Tenn.—School.—"Board of Education" will erect a school building of eight rooms, steam heat, etc.

Norfolk, Va.—Hospital.—Drs. Kirkland Ruffin and Lomax Gwathmey will build a hospital to cost \$30,000, after plans by John K. Peebles.

Norfolk, Va.—Flats Building.—M. B. Crowell will erect flats building.

Orange, Texas.—Business Block.—J. W. Link has ordered plans for his proposed brick business block.

Ozark, Ala.—Courthouse.—Dale county will shortly begin erection of a \$30,000 courthouse. Address G. P. Dowling, probate judge.

Ozona, Texas.—Courthouse.—Commissioners' court of Crockett county will advertise for bids on June 10 for erection of new courthouse in accordance with plans and specifications on file with county clerk; duplicates in office of Architect Oscar Ruffin at San Angelo; Chas. F. Davidson, county judge.

Reisterstown, Md.—Bank Building.—Reisterstown Bank Co. will erect a brick and stone building.

Reisterstown, Md.—Church.—Lutheran Church will build a \$5000 to \$10,000 edifice; Rev. G. H. Beckley, pastor.

Richmond, Va.—Church.—Ainslee & Rooney have contract to build Broadus Memorial Baptist Church structure; will cost \$20,000.

Richmond, Va.—Hotel.—Col. John Murphy will expend about \$40,000 to improve and enlarge his hotel.

Salem, Va.—Residence.—T. J. Shickel awarded contract to N. Hockman for erection of residence.

Salisbury, N. C.—Market-house.—P. H. Thompson and N. B. McCannless propose erecting 100x200-foot market-house.

San Antonio, Texas.—Warehouse.—Coughlin & Ayres are preparing plans and specifications for a two-story brick warehouse to be erected by D. J. Woodward.

Selma, Ala.—Church.—S. C. Houser & Wolsoncroft of Anniston have contract for erection of new edifice of Church Street Methodist congregation, to cost \$25,000.

Shreveport, La.—Hotel.—P. Youree proposes the erection of a \$125,000 hotel.

Shreveport, La.—Building.—Sonnesfield & Emmins have contract for erection of proposed athletic club building; cost \$25,000.

Spartanburg, S. C.—Hall.—Trustees of Wofford College awarded contract for building new alumni hall to L. A. Justice; plans by Frank P. Milburn of Columbia, S. C.; cost \$15,000.

Sistersville, W. Va.—School.—Election will be held June 17 to consider issuance of \$12,500 of bonds for erection of school building; J. E. Hostetter, secretary board of education.

Tuscaloosa, Ala.—Warehouse.—Cudahy Packing Co. has let contract for erection of brick warehouse, one story, 34x74 feet.

Union, S. C.—Residence.—P. E. Fant will erect residence.

Union Springs, Ala.—Warehouse.—W. A. Curry and S. C. Cowan will erect a cotton warehouse.

Velasco, Texas.—School.—City will hold an election June 20 on issuance of \$6000 of bonds for erection of school building. Address "The Mayor."

Wilmington, N. C.—City Building.—Bids will be opened May 30 for improvements to city building; plans on view at office of "City Clerk" and of H. E. Bonitz, architect.

Washington, D. C.—Apartment-house.—Incorporated: Gladstone Apartment-House Co.; capital stock \$100,000; H. B. Davidson, president.

Washington, D. C.—Apartment-house.—B. B. Bradford will erect a five-story apartment-house of brick and stone.

Washington, D. C.—School.—H. B. F. McFarland and others, District commissioners, will open bids June 15 for erection of four-room school after plans on file. Blank forms are obtainable. Will also open bids at same time for another school of same size.

Wheeling, W. Va.—Theater.—Kleeve-Kraft Company has contract at \$150,000 for erection of the new theater and office building previously reported to be erected by Board of Trade Building Co.

Yorkville, S. C.—Hotel.—The new hotel at Cliffs, destroyed by recent storm, will be rebuilt. Address L. T. Nichols.

## RAILROAD CONSTRUCTION.

### Railways.

Athens, Texas.—The Southern Pacific Railway Co. has completed fifty-one miles of its extension between Athens and Nacogdoches. The line will be built to a connection with the Sabine & East Texas Railroad, a further distance of sixty-four miles. G. W. Boschke at Houston, Texas, is engineer.

Baileysville, W. Va.—The estimated length of the Tug & Guyandotte Railroad, recently surveyed, is forty-six miles, and right of way is now being obtained. The line will extend from a point on the Norfolk & Western Railroad in McDowell county to Baileysville. C. A. Wagner at Welch, W. Va., is engineer.

Bellington, W. Va.—N. T. Arnold at Ridgeway, Pa., is reported as interested in the railroad under construction between Bellington and Clarksburg, W. Va., a distance of thirty miles, which will connect with the West Virginia Central & Pittsburg and the West Virginia Shortline railways. The promoters have secured extensive coal deposits along the right of way.

Blacksburg, S. C.—A correspondent of the Manufacturers' Record confirms the report that engineers representing the Southern Railway have recently been examining the route between Blacksburg and Augusta by the way of Union and Johnston. A part of the route contains a roadbed already graded. The estimated distance between Blacksburg and Augusta is 140 miles. W. H. Wells at Washington is engineer of the Southern.

Crowley, La.—A railroad company has been organized to build from Crowley to a connection with the Kansas City, Watkins & Gulf, also the Kansas City Southern systems. It includes Thomas Gahan, president of the Ogden Gas Co. of Chicago; J. L. Dawson of Cincinnati, Ohio, and J. W. Orr, president of the State Bank of Champaign, Ill. An examination of the route has already been made.

Cumberland, Md.—The construction of the electric railroad between Cumberland, Frostburg and Loaconing has begun at Frostburg. The Penn State Construction Co., Drexel Building, Philadelphia, has the general contract.

Dahlgone, Ga.—The North Georgia Con-

struction Co. has been organized to build the electric railroad between Gainesville and Dahlgone, and has elected A. J. Warner, president; W. A. Carlisle, vice-president, and J. P. Moore, secretary and treasurer.

Dallas, Texas.—P. S. Dupont of Lorain, Ohio, said to represent a Western syndicate, has purchased the street-railway system of Dallas, and, it is understood, will build the proposed electric line between Dallas and Fort Worth.

Dallas, Texas.—The St. Louis & San Francisco Railroad Co. has let a contract to W. J. Oliver & Co. of Langley, S. C., to construct its extension from Dublin to Vidalia, a distance of forty miles. The extension is to be completed within four months. James T. Wright at Macon is president of the railroad company.

Douglas, Ga.—Surveys have begun for the proposed railroad from Douglas to the Ocmulgee river. A. Lawrence is engineer.

Dublin, Ga.—The Macon, Dublin & Savannah Railroad Co. has let a contract to W. J. Oliver & Co. of Langley, S. C., to construct its extension from Dublin to Vidalia, a distance of forty miles. The extension is to be completed within four months. James T. Wright at Macon is president of the railroad company.

El Paso, Texas.—It is announced that about fifty miles have been graded and fifteen miles completed on the extension of the El Paso & Northeastern Railroad, now under construction. The line is called the El Paso & Rock Island Railroad, and will terminate at a connection with the Rock Island system. J. A. Eddy at Alamogordo, N. M., is general manager.

El Paso, Texas.—The city authorities are considering the granting of a franchise to B. F. Hammett and J. A. Eddy for a terminal railroad in El Paso. It is understood that Messrs. Hammett and Eddy represent the El Paso & Northeastern Railroad Co.

Fitzgerald, Ga.—The Waycross Air Line Railroad Co. has determined to build the extension from Fitzgerald to Cordell, an estimated distance of thirty-five miles, at once, and is completing surveys with the view to letting contracts at an early date. George D. Wadley at Waycross is vice-president of the company.

Frankfort, Ky.—A plan is under way to build an electric system which will aggregate about 100 miles through portions of Mason, Harrison, Scott, Franklin and Shelby counties. W. J. Thomas and D. B. Berry are among the promoters of the enterprise.

Geneva, Ala.—It is announced that a company called the Enterprise, Geneva & Gulf Railroad Co. is being organized to build between Enterprise and Geneva, an estimated distance of twenty-two miles.

Georgetown, S. C.—The railroad being built by the Georgetown & Western Railroad Co. to Pawley's Island is three miles long, and will be operated in connection with a steamer line from Georgetown to Hagley. It is expected to have the road completed in a few weeks. E. B. Freeman at Georgetown is general manager of the company.

Hamburg, Ark.—The Cossett Lumber Co. of Hamburg confirms the report that it intends building a railroad which will be thirty-five miles long, extending to its timber lands. E. Gates is secretary of the company.

Henrietta, Texas.—The Kansas, Eastern Oklahoma & Texas Railroad Co. is reported, is about to begin surveys for its line between Cherryvale, Kan., and Henrietta. J. S. Brewster of Cherryvale is president, and F. L. Pitman of Cushing, Okla., general manager.

Houston, Texas.—It is reported that the Southern Pacific Railway Co. has determined to enlarge its yard at Houston, and has recently purchased land for the purpose. G. W. Boschke is engineer.

Houston, Texas.—The Southern Pacific Railway Co. is constructing a branch in the suburbs, which will be about two miles long, to reach several industries.

Little Rock, Ark.—About 150 miles of the extension of the Choctaw, Oklahoma & Gulf Railroad from Weatherford, Okla., to Amarillo, Texas, have been graded and several miles of track laid by the contractors, Messrs. Johnston Bros. & Faught of St. Elmo, Ill. F. A. Molitor at Little Rock is chief engineer of the company.

Little Rock, Ark.—It is reported that the Choctaw, Oklahoma & Gulf Railroad Co. has decided to begin the construction of a branch from Little Rock to Malvern, Ark., a distance of forty miles. F. A. Molitor at Little Rock is chief engineer.

Memphis, Tenn.—It is reported that the St. Louis Southwestern Railroad Co. is making surveys from Pawpaw, Mo., to Memphis, an estimated distance of 100 miles, with the view to constructing an air line between these cities. F. H. Britton at St. Louis is president of the company.



Monterey, Tenn.—Tracklaying has commenced upon the branch of the Nashville & Knoxville Railroad to coal mines in the vicinity of Crawford, while the right of way has been entirely graded. R. J. Moscrip at Monterey, Tenn., is engineer. The branch is eighteen miles in length.

New Decatur, Ala.—Promoters of the railroad between New Decatur and Jasper, Ala., have been recently examining the route, and it is understood that a foreign syndicate is interested. The length of the line is estimated at sixty miles, and a company has been formed called the Decatur, Danville & Southwestern Railroad Co. R. L. Stephenson of New Decatur is interested in the project.

Parkersburg, W. Va.—Messrs. Jackson & Knox have been appointed engineers of the Parkersburg & Marietta Railroad Co., which proposes building from Parkersburg to Marietta, Ohio. The estimated distance is thirteen miles, and it is understood contracts will be let within the next thirty days.

Roanoke, Va.—It is reported that the Norfolk & Western Railroad Co. has determined to complete a second track between Roanoke and Blue Ridge Springs. C. S. Churchill at Roanoke is engineer.

Ruston, La.—D. Stein of Farmerville, La., is interested in the proposed railroad between Ruston and Hamburg, Ark., which will pass through Farmerville.

Sedalia, Mo.—It is reported that the Sedalia, Warsaw & Southwestern Railroad Co. has determined to change the gauge of the line it controls from narrow to standard, and that the necessary rails have been purchased. G. W. Inge of Sedalia is superintendent of the company.

Seymour, Texas.—The Wichita Valley Railroad Co. is considering an extension from Seymour to Benjamin, Texas, a distance of thirty-five miles. Morgan Jones of Fort Worth, Texas, is manager of the railroad company.

Sherman, Texas.—The Sherman & Northern Railway Co. has been chartered to build between Sherman and a point near the line between Texas and Indian Territory, an estimated distance of thirty miles. C. A. Lyon and W. C. Eubanks of Sherman are among the promoters.

Shreveport, La.—The business men of Shreveport are agitating the question of having the Gulf, Beaumont & Kansas City Railroad extended from its present terminus to Shreveport. It is now a portion of the Gulf, Colorado & Santa Fe system. Officials of the company have recently been conferring with citizens of Shreveport.

Springfield, Mo.—Surveys have been completed for the Chicago, Jefferson City & Springfield Railroad between Springfield and Alma, Mo., and it is understood that the promoting company intends taking up the project immediately. The road is proposed between Springfield and Jefferson City, an estimated distance of 125 miles. R. G. Scott is manager of the company. William Woodburn of Des Moines, Iowa, is also one of the promoters.

St. Genevieve, Mo.—The McArthur Bros. Co., which has secured a contract for constructing the Southern Missouri Railroad, will sublet much of the excavation and rock work. The excavation is estimated at 750,000 cubic yards, and the rock cutting at 250,000 cubic yards. The length of the road is fifty miles, extending from St. Genevieve to Bismarck, Mo. C. H. Bosworth of Chicago, Ill., is president. The contractors may be addressed at 1410 Great Northern Building, Chicago.

St. Louis, Mo.—John B. Paddfield and James O. Morris are interested in the Hall's Ferry & Des Peres Belt Line Railroad Co., which it is understood intends building in the suburbs of St. Louis.

Sweetwater, Texas.—It is reported that construction on the Kansas City, Mexico & Orient Railroad in Texas will begin at two points in the near future. A. E. Stilwell at Kansas City is president of the company.

Talladega, Ala.—A report is current that the Alabama Pyrites Co. has decided to build a railroad from its mines near Ashland to Talladega, and is having surveys made of the route.

Tampa, Fla.—It is announced that contracts for grading the road to be built by the Tampa Bay & East Coast Railroad Co. between Tampa and Bartow, forty-five miles, have been let to W. B. Swearingen of Bartow. R. H. Rhett of Charleston, S. C., is president of the company.

Union, Mo.—Bids have been received for constructing fifty miles of the extension of the St. Louis, Kansas City & Colorado Railroad from Union west. The estimated cost of the extension is \$1,500,000. It is expected to let contracts for an additional section by

September 1. John Scullin, Security Building, St. Louis, Mo., is president of the company.

Union Springs, Mo.—It is announced that B. H. Hardaway of Columbus, Ga., has secured a contract to construct the Union Springs & Northern Railroad between Union Springs and Fort Davis. W. M. Blount of Union Springs is president of the company.

Vidalia, La.—It is announced that preliminary surveys of the New Orleans, Natchez & Arkansas Railroad have been completed from Vidalia to Lake Providence. W. M. Fenton is chief engineer.

Washington, N. C.—Arrangements are being made to begin construction upon the Washington & Plymouth Railroad, and it is expected to have it in operation during the present year. The road will be thirty-five miles in length. E. A. Armstrong of Camden, N. J., is president of the company, and R. H. Cohn of Norfolk, secretary.

Welch, W. Va.—A correspondent of the Manufacturers' Record writes that A. H. Patton of Welch is one of the promoters of the electric railroad from Bluefield, W. Va., along what is known as North Fork. The route is through Welch.

#### Street Railways.

Beaumont, Texas.—The Beaumont Street Railway Co. has completed surveys for its proposed electric system, which will embrace twenty miles of trolley line. A portion of the rails for the system have already been received. M. A. Orloff of Beaumont is one of the promoters.

Chattanooga, Tenn.—The Chattanooga Electric Railway Co. It is stated, has decided to issue \$375,000 in bonds for the purpose of rebuilding a portion of its electric system in the city.

Greensboro, N. C.—The Greensboro Electric Company has made a proposition to the city authorities to build a street railway, and has secured a franchise.

Norfolk, Va.—The Norfolk Railway & Light Co.'s extension in the town of Berkley will be about two miles in length. C. P. Wright at Norfolk is general manager.

Savannah, Ga.—C. R. Williams is reported as interested in a plan to build another street railway in the city and suburbs.

#### Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

**Agricultural Machinery.**—Thomas Allport, Waller, Fla., wants catalogues and price-lists on agricultural machinery, flour mills, saw-mills and other machinery which he contemplates introducing into Russia by personal effort.

**Alumina Plant.**—See "Alum Plant."

**Alum Plant.**—Dixie Bauxite Co., Box 17, Rome, Ga., wants estimates on 25-ton alum plant; also on alumina plant.

**Boiler and Engine.**—See "Ginnery."

**Boiler and Engine.**—See "Knitting Mill."

**Boiler and Engine.**—W. A. Gray, Mullins, S. C., wants prices (delivered) on 40-horse-power boiler and 20-horse-power engine.

**Boilers and Engines.**—See "Well-boring Equipment."

**Bottling Machinery and Supplies.**—Red Boiling Water Co., B. Kirk Rankin, manager, Nashville, Tenn., is in the market for bottling machinery, corks and supplies.

**Box Machinery.**—See "Woodworking Machinery."

**Brewery.**—Uneda Brewing Co., Wheeling, W. Va., will be in the market for equipment for brewery of 40,000 barrels per year capacity and for a 100-ton ice plant. Address C. W. Conner.

**Bridge.**—Commissioners of roads and revenues, Macon county, Georgia, Oglethorpe, Ga., will open bids July 23 for construction of steel bridge and wood approaches. Plans and specifications on file with A. H. Perry, clerk.

**Bridge.**—J. N. Williams, clerk of police jury, Abbeville, La., will receive sealed bids

until June 10 for construction of bridge. Bids will also be received for furnishing hardware for said bridge. For further particulars address W. Qureau, president police jury, Gueydan, La.

**Bridge.**—P. P. Keith, Shreveport, La., will open bids June 13 for construction of 375-foot steel bridge.

**Bridge.**—J. M. Blackshear, commissioner, Dublin, Ga., will open bids July 15 for construction of extension to steel bridge; Geo. H. Crafts & Co., Atlanta, engineers.

**Broom Machinery.**—John L. Lingerfelt, 124 Woodfin street, Asheville, N. C., wants prices on broom-making machinery and full particulars regarding manufacturing operations.

**Broom Machinery and Supplies.**—G. A. Ritch, Union Springs, Ala., will need machinery and supplies for broom factory of 200 dozen per week capacity.

**Building Materials.**—Chas. R. Tysen, Jacksonville, Fla., is prepared to receive catalogues and price-lists of building materials.

**Building Supplies.**—Saxon Lime & Lumber Co., Bluefield, W. Va., are continually in market for flooring, ceiling, boards, doors, sash, glass, cements, plaster, etc.

**Carbonating Supplies.**—Capital Carbonating Co., Charleston, W. Va., will need supplies of various kinds, including syrups, extracts, etc.

**Cement Machinery.**—J. E. Summers, Arlington Hotel, Lynchburg, Va., is in the market for cement-making machinery, including pulverizers, dryers, roasters, etc.

**Cider Mill.**—W. H. Marshall, Elkton, Va., is in the market for a cider mill and press.

**Collar and Cuff Machinery.**—Burnham-Munger Manufacturing Co., W. B. Thomas, manager, Kansas City, Mo., wants to buy presser for cutting cloth into collars and cuffs.

**Dam.**—City Mills Co., G. A. Pearce, president, Columbus, Ga., invites bids for construction of a stone dam (about 6000 cubic yards of masonry), according to plans and specifications on file.

**Drainage System.**—Proposals for the construction of proposed drainage system at New Orleans continue to be advertised for by the commission in charge. Bids will be opened July 2. Address R. M. Walmsley, president, or plans and specifications can be seen at Room 20, City Hall. Work will include pumping station, lined and covered canals, etc., and several million dollars will be expended.

**Drilling Equipment.**—Mayflower Well Boring & Mining Co., W. H. Wood, president, Dallas, Texas, wants bids on equipment to drill to 3500 or 4000 feet, 30 or 35-horse-power fire-box boilers, engines, pumps, etc.

**Drilling Equipment.**—New Iberia Oil & Drilling Co., P. H. Wissinger, secretary, New Iberia, La., is in the market for drilling outfit.

**Dry-kiln.**—Louisville Veneer Mills, Louisville, Ky., wants estimates on dry-kiln for drying veneers and thin lumber ranging from the thinnest veneers to one-inch lumber; circulation either produced by exhausting or pressure.

**Dry-kiln.**—See "Woodworking Machinery."

**Dye Plant.**—See "Knitting Mill."

**Electrical Equipment.**—Lacy Manufacturing Co., Fayetteville, N. C., is in the market for immediate delivery of a 20-horse-power engine and 100-light dynamo complete.

**Electric Dynamo.**—See "Knitting Mill."

**Electric-light Plant.**—See "Woodworking Machinery."

**Electric-light Plant.**—Town of Roanoke, Ala., Z. J. Wright, mayor, will be in the market about June 15 for machinery and supplies for electric-light plant and water-works.

**Electric-light Plant.**—J. M. Cheney, Orlando, Fla., will probably buy complete outfit for electric plant of twenty-eight 2000-candle-power arc lights.

**Engine.**—See "Woodworking Machinery."

**Engine.**—See "Electrical Equipment."

**Engine.**—F. P. White, Shallotte, N. C., wants a three or four-horse-power gasoline engine, second-hand.

**Excelsior Machinery.**—J. H. Cullen, Waynesboro, Va., wants to correspond with manufacturers of machinery for making excelsior.

**Flour Mills.**—See "Agricultural Machinery."

**Ginnery.**—Boaz (Ala.) Gin & Mill Co. is in the market for four 70-saw gin outfit and a 60-horse-power engine and boiler.

**Heating Apparatus.**—J. K. Taylor, supervising architect, Treasury Department, Washington, D. C., will open proposals June 24 for furnishing and installing heating ap-

paratus for United States postoffice and courthouse building at Beaumont, Texas, in accordance with plans, etc., now obtainable. Address above or superintendent United States postoffice building at Beaumont.

**Ice Plant.**—See "Brewery."

**Ice Plant.**—W. H. Marshall, Elkton, Va., is in the market for a two to three-ton ice plant.

**Irrigation Plant.**—S. F. Green, Canada, Texas, will want soon irrigation machinery.

**Knitting Mill.**—Jonesville Knitting Mills, Jonesville, S. C., will want automatic hydraulic press of 1000 dozen capacity, 12x36 Corliss engine (second-hand preferred), 100-horse-power boiler, return flue, to work at 125 pounds pressure; machinery for complete dye plant of capacity of 1500 pounds daily; also 300-light dynamo, with all necessary wiring.

**Levee Construction.**—Bids will be opened June 5 for levee construction of about 110,000 cubic yards. Information and blank forms at board of State engineers, Cotton Exchange Building, New Orleans, or at levee board, Tallulah, La. Address proposals to J. T. McClellan, president of commission, Carroll Hotel, Vicksburg, Miss.

**Lumber.**—Gilliland Electric Co., Adrian, Mich., is in market for 1,000,000 of two-inch cull oak plank in short lengths (one foot or multiple thereof), either green or dry; also for mill run and cull oak, butternut and walnut in carload lots; prices to be f. o. b. Adrian.

**Lumber.**—See "Telephone Poles."

**Lumber Dealers.**—Home Manufacturing Co., Newton, N. C., wants addresses of dealers in oak and pine lumber.

**Machine and Lathe Work.**—Gilliland Electric Co., Adrian, Mich., is prepared to contract for screw-machine and lathe work in quantities of 50,000 to 1,000,000 pieces in brass, steel and iron; prices to be f. o. b. Adrian.

**Machine Tool.**—Salem Iron Works, Salem, N. C., is in market for second-hand vertical square chisel mortising machine heavy enough to mortise car sills or timber at least 6x8, thirty feet long; would like it to have boring attachment.

**Machine Tools.**—Board of awards, City Hall, Baltimore, Md., will open bids June 5 for furnishing machine for making taps of two inches, three inches, four inches and six inches diameter on all sizes of pipe, according to specifications, which can be obtained from water engineer, City Hall.

**Mineral Rod.**—W. Littlefield, Columbus, Texas, wants to buy mineral rod.

**Mining Equipment.**—See "Quarrying Machinery."

**Mining Equipment.**—Tutwiler Coal, Coke & Iron Co., Birmingham, Ala., is in the market for the following new or second-hand machinery: Two 125-horse-power boilers, heater, No. 5 pump for boiler feed, 7½ crusher, 50-horse-power crusher engine, ore chute, compressor to run twenty-two drills, hoist engine 22x30 inches with six-foot drum, 50,000-gallon water tank, reservoir to hold 500,000 gallons, sixty tram cars with 16-inch wheels, No. 9 pump for sump in mines, fifteen air drills complete, 400 feet eight-inch steam pipe, air receiver for compressor 4x13 feet, 1000 feet six-inch air pipe, 2000 feet two-inch air pipe, 1000 feet one-inch air pipe, 3000 feet 40-pound rail for headings, 800 feet four-inch pipe for pump, 400 feet three-inch pipe for pump, twenty feet four-inch suction hose, revolving tippie, twenty kegs track spikes ½x¼ inch, 8000 feet two-inch water pipe and two four-foot sheave wheels, etc.

**Mining Supplies.**—Crawford Coal & Iron Co., R. J. Moscrip, superintendent, Monterey, Tenn., wants circulars, etc., relative to coal screens.

**Oil-fuel Apparatus.**—Mayflower Well Boring & Mining Co., W. H. Wood, president, Dallas, Texas, wants bids on burners for converting coal-burning boilers into crude-oil burning.

**Pipe.**—Home Water Supply Co., Spartanburg, S. C., wants prices f. o. b. Spartanburg on 500 feet second-hand six-inch standard weight cast-iron water pipe; also on seventy to eighty-five feet second-hand 10-inch sewer pipe, light weight.

**Pipe, etc.**—W. A. Gray, Mullins, S. C., wants prices (delivered) on specified quantity of pipe, tees, elbows, unions, globe valves, nipples, etc.; piping aggregates over 300 feet.

**Piping.**—See "Well-drilling Machinery."

**Quarrying Machinery.**—Southern Stone & Development Co., W. W. Cain, secretary, West, Miss., wants to correspond with manufacturers of quarrying machinery, implements and supplies; also of mining equipments and saw-mills.

**Railway Equipment.**—Cook Bros. Brick Co., Americus, Ga., will need 10 or 12-ton



locomotive, standard gauge preferred, second-hand.

**Railway Equipment.**—Tar River Lumber Co., Rocky Mount, N. C., wants three miles of 25-pound relaying rails, with splices and bolts; wants prices quoted delivered at siding, 130-mile post, W. & W. division of A. C. L.; will buy in lots of one to three miles.

**Roofing.**—See "Woodworking Machinery."

**Salt.**—Cedar Key Fish Curing Co., P. O. Box 236, Lake City, Fla., is in the market for a lot of solar evaporated salt.

**Salt-making Equipment.**—See "Well-drilling Machinery."

**Saw-mills.**—See "Mining Equipment."

**Saw-mills.**—See "Well-boring Equipment."

**Saw-mills.**—See "Agricultural Machinery."

**Showcase Moldings.**—South Boston (Va.) Showcase Works wants addresses of makers of showcase moldings of hardwood.

**Spring-bed Machinery.**—I. B. Isbill, No. 401 Cowart street, Chattanooga, Tenn., wants addresses of makers of spring-bed (woven mattress) machinery.

**Telephone Poles.**—Clarendon Electric Light & Power Co., Geo. W. Washington, manager, Clarendon, Texas, will need about 200 cedar poles thirty to thirty-five feet long.

**Textile Machinery.**—J. W. Halstead, Henderson, N. C., wants information regarding machinery for making rope and cordage.

**Veneer-mill Equipment.**—National Veneer Co., J. W. Roche, manager, Charleston, W. Va., will need engine, slide valve, 150-horse-power; two boilers of 100 pounds pressure, steam pump and heater, 250 feet three-inch shafting, post hangers, two rotary veneer machines and clippers, drag saw, swing cut-off saw, double cut-off saw, four or five rip and cut-off saws, two glueing machines, glue presses, two knife grinders, band saws, sanders, planer, buzz planer, 12-inch sticker; elevator, dust arrester, factory trucks; also T rails (small) and trucks, dry-kiln, pulleys, belting and steam pipe.

**Water Mains.**—Proposals (in triplicate) will be opened June 7 at office depot quartermaster, United States Army, Room 897, Equitable Building, Baltimore, Md., for furnishing material and labor for extension of water mains at Fort Howard, Md. Usual rights reserved. Instruction to bidders and information furnished on application to Capt. T. B. Lamoreau.

**Water-works.**—See "Electric-light Plant."

**Well-boring Equipment.**—Texas Oil Land & Investment Co., O. H. De Lamorton, president, 2005 Postoffice street, Galveston, Texas, wants prices on rotary boring machines, well casings, pipings, etc.; on portable steam engines, pony saw-mills, stationary boilers and engines ranging from two to thirty horse-power.

**Well-drilling.**—J. G. McDonald, Jr., county judge, Anderson, Texas, will receive bids for completion of an artesian well. Usual rights reserved.

**Well-drilling Equipment.**—Oil Springs Heights Oil Co., Alf. H. H. Tolar, president, Angleton, Texas, is in the market for a complete well-boring outfit, including piping, etc., with capacity for boring 2000 feet.

**Well-drilling Machinery.**—D. E. Sweet, president Prairie Oil Co., Jennings, La., wants estimates on drilling an oil well; possibly may buy equipment.

**Well-drilling Machinery.**—R. W. Harris, 150 Pine street, Mobile, Ala., wants information and prices on well-drilling machinery, on piping oil and supplies for construction, and on salt-making by evaporation process.

**Well-drilling Machinery.**—Chas. B. Peck, No. 313 Kiam Building, Houston, Texas, wants to correspond with drillers of oil wells, or may buy drilling outfit.

**Woodworking Machinery.**—See "Veneer-mill Equipment."

**Woodworking Machinery.**—W. H. Marshall, Elkton, Va., wants a barrel-head machine.

**Woodworking Machinery.**—Josserand (Texas) Lumber Co. needs at once a 10x4 four-side matcher.

**Woodworking Machinery.**—J. L. Struhl, Elizabeth City, N. C. will want box machinery.

**Woodworking Machinery.**—Huffman Bros., Appold, Va., are in market for handle lathe, heading turner and bolter.

**Woodworking Machinery.**—Crowder & Anderson, Drawer No. 298, Waynesboro, Va., are in the market for outfit for manufacture of coopers.

**Woodworking Machinery.**—A. A. Berger, Florence, Ala., wants information on manufacture of cigar and tobacco boxes from gum timber, and prices on necessary machinery.

**Woodworking Machinery.**—J. B. Kennedy, care Metropolitan Hotel, Birmingham, Ala.,

will be in the market for dry-kiln, small electric-light plant, heading, jointers, turners, roofing, etc.

**Woodworking Machinery.**—J. M. McBeath, Nos. 1 and 2 Ormond Building, Meridian, Miss., wants addresses of makers of box and crate machinery.

**Woodworking Machinery.**—C. C. Pusey, proprietor Susquehanna Boat Works, Havre de Grace, Md., wants bids on 10-horse-power stationary gasoline engine, 18 to 24-inch pony planer, 30-inch band saw and universal bench saw.

## TRADE NOTES.

**Cotton-Mill Sale.**—An opportunity to engage in the textile industry in the South is offered by "Cotton Manufacturer," care this publication. The offer is to sell a cotton factory of 8000 spindles and 250 looms or take stock in organization of new company.

**Adjustable Broom Rack.**—Merchants who deal in brooms will be interested to know that there is now being introduced a rack for brooms that economizes space. The rack is already being used by a number of dealers and giving entire satisfaction. R. L. Edwards, the manufacturer, can be addressed at Itta Bena, Miss., for particulars.

**Couplings for Compressed Air.**—The increased use of compressed air for operating machines and tools has largely increased the sales of "Quick as Wink" couplings. These couplings are time-savers, and claimed to be much more convenient than the common screw coupling on hose for water, steam and chemicals. W. J. Clark Co., Salem, Ohio, manufactures the "Quick as Wink."

**First-Class Lathes at Minimum Cost.**—A plant of the most modern design and equipment and methods that practical experience has proven of highest character enter into the construction of the engine lathes made by Schumacher & Boye of Cincinnati. Their factory was built especially for the manufacture of engine lathes. These tools are of the highest grade throughout. They are carefully designed and finished, and built on the interchangeable principle.

**To the Employes' Advantage.**—One of the most prominent electrical manufacturers has just taken an action that will be of much advantage to its employes. This action is to operate factory fifty-four hours per week and pay same wages as when factory was running on a 60-hour basis. The General Incandescent Arc Light Co., 572 First avenue, New York, is the employer in this instance. Arc lamps, switches, switchboards, power motors, flush switches, etc., is the product.

**Want Tumbling Mills?**—If so, then write for particulars regarding some fine tools in this line now being offered by the Hill & Griffith Co., Cincinnati. It has eleven mills in good repair, which are being offered at an equitable price. One of the tumbling mills—72-inch length, 23-inch diameter, 12 iron staves, 11-inch width, 12-sided—has been used for cleaning pulleys, and would be a valuable addition to any plant requiring a machine for heavy work up to 150 and 175 pounds. The mills are octagonal. Send for further details.

**Sites for Textile Mills.**—The progress of the Southern textile-manufacturing industry has attracted attention from all sections of the country. Northern, Eastern and Western capitalists have become interested and have invested in Southern textile mills. Sites especially suitable for the industries referred to are located on the Nashville, Chattanooga & St. Louis Railway. Water-powers are present for advantageous development. J. B. Killebrew, industrial agent of the railway, Nashville, Tenn., will be pleased to give information to inquirers.

**Morse, Williams & Co. at Atlanta.**—Messrs. Morse, Williams & Co., the well-known Philadelphia elevator builders, have established an office and warehouse at 58 South Broad street, Atlanta, Ga., in charge of C. H. Wardell as local manager. Samples of hand and belt elevators and parts of machines will be carried in stock. The field of operations from the Atlanta branch will be in South Carolina, Georgia, Florida and portions of Alabama and North Carolina. Estimates on new plants or repairs to established equipments will be furnished promptly.

**York Manufacturing Co.**—This is one of the leading manufacturers of ice-making and refrigerating machinery. Their most recent contracts included order for a 10-ton refrigerating plant for the storage of furs and other goods in the dry goods line; also a five-ton refrigerating plant for a London (England) firm, the contract being placed in

person by Arthur G. Enock of London, who visited the works at York, Pa. Mr. Enock also gave the York Manufacturing Co. contract for two 20-ton ice-making and refrigerating machines to be shipped to the Mauritius Islands.

**Large Air-Compressing Plant.**—The use of compressed air continues to extend, and contractors for costly work are placing their orders for compressed-air equipment with the most successful builders of that class of equipment. McKiernan Drill Co., 120 Liberty street, New York, is prominent in this construction of air-compressing plants, and has just received a contract amounting to about \$25,000 from Messrs. Shanahan, Woolfolk & Co. of South Framingham, Mass. The Massachusetts firm will use the apparatus in its contract from Boston for an aqueduct of two tunnels, etc.

**Fairbanks Valves.**—In contracting for the construction of modern buildings most careful consideration is given to the reliability of the heating system. This necessarily involves the utmost care in the selection of the valve to be used. Points of superiority in valves must be fully demonstrated by the severest test of actual service. Because of this many leading architects and engineers have approved and adopted the Fairbanks Valves. Descriptions of these valves and cocks are of interest. If you are interested in these products ask the Fairbanks Company of Baltimore, New York, New Orleans and other leading cities for further facts.

**Special Drying Problems.**—Drying problems frequently arise to vex the manufacturer. This is most likely to happen where some new material or combination of materials are to be worked. A special study of drying problems is made by the American Blower Co. of Detroit, Mich. It states this study to be one of the features of its business, and offers its services in the belief that it can fully prove its ability to cope with anything which may be presented in the drying line. The company has lately furnished drying equipments for powder, rubber, pulp, plaster, second-hand bags, curd, tobacco and eggs. Such a range is ample evidence of its ability to furnish dryers.

**Steam Towing Machine.**—The question of safety in ocean barge towing has been lately talked of in the maritime journals. The principal cause of disaster to barges being towed has been occasioned usually by the parting of the hawsers through the frequent jerking that necessarily results when waters are rough. However, up-to-date towing equipment can overcome the possibility of hawsers parting, and the American Ship Windlass Co. of Providence, R. I., constructs and offers such an equipment. This equipment is the well-known Shaw & Spiegel Steam Towing Machine, that has met with such signal success in various parts of the world. If you want to become acquainted with the principle of the device referred to, write to its builder.

**The Cheapest Belting.**—Belting is an important consideration with power users. The full transmission of generated power depends largely upon the belting used in that transmission. It is certainly common sense to say that a rusty link would not be put in a good chain. So with belting, it pays best to install at the first a grade that, while it may be higher in price than some other, yet will furnish such decisive results that the most exacting will be greatly pleased. Such a belting Messrs. I. B. Williams & Son claim to offer in their Cocheo Belting. They say this is the cheapest belting, simply because it will decrease expenses one-third and increase the production of the machines it operates. The Messrs. Williams may be addressed at Dover, N. H., where their factories are located, or at the Chicago branch, 17 West Lake street.

**Sullivan and Bullock Drills.**—The Sullivan Machinery Co. of Chicago has recently become successor to the M. C. Bullock Manufacturing Co., and in future will manufacture the complete line of diamond drills, rock drills and mining machinery formerly put on the market by both concerns. Since this change in management the Sullivan Company has transferred the Western works into the larger and more commodious building formerly occupied by the Bullock Company. A line of Corliss air compressors and Corliss hoists of all sizes are now being built, which has necessitated the complete overhauling and enlarging of this plant. Two new buildings have lately been erected, and are now almost ready for use. The Sullivan Company now has agencies on the Pacific coast, Denver office in charge of R. D. Hunter, and Spokane (Wash.) office under management of M. J. Ready.

## TRADE LITERATURE.

**Edison Link Cut-Outs.**—An illustrated booklet just issued will interest electrical manufacturers and other users of cut-outs. The publication is devoted to the Peru Edison Link Cut-Outs. Western Electrical Supply Co., St. Louis, can supply booklet.

**About a Street Railway.**—Such is the title of a booklet of ten pages which has been issued by the Western Electrical Supply Co., Seventh street and Clark avenue, St. Louis. The publication tells something about lighting arresters that no buyer for street railways should be ignorant of. Booklet for the asking. Send at once. It may save you many thousands of dollars.

**Tanks of All Sizes.**—Tanks enter largely into industrial activity. Many factories need tanks in the conduct of their operations, as do also railways and other enterprises. Harry Bros. Co., 240 Pacific avenue, Dallas, Texas, manufactures tanks of all sizes and for all purposes. Its product also includes galvanized guttering, piping and cresting, ridge roll and galvanized-steel work. Send for leaflet of particulars.

**Reliance Steam Trap.**—Capacity, efficiency and durability are three qualities that will be readily acknowledged to constitute a satisfactory device. Such are the advantages of the Reliance Steam Trap, made by the Reliance Gauge Column Co., Cleveland, Ohio. The trap embraces all the best features of more expensive traps. It is simply constructed and easily accessible for inspection. Send for leaflet telling of the merits of the device.

**Hardwood Flooring.**—There is a constantly growing demand for hardwood flooring, which is fully merited by the advantages derived from its application. Pioneers in the manufacture of hardwood flooring supply this product. Among such is the T. Wilce Co. of Twenty-second and Throop streets, Chicago. Its maple flooring is extremely popular with builders, contractors and building owners. Its booklet tells about the tenacity and durability of the floorings offered.

**Who Uses Mechanical Draft?**—This question is fully answered in a publication just issued for that purpose. A perusal of the lists given shows that the most prominent and best-known industrial plants of this country and of foreign lands are using mechanical draft. Highest-class industries of every character are noted in the lists. They use the Sturtevant Fans for forced draft, also for induced draft. Foreign boiler plants employing the Sturtevant fans for mechanical draft are in all sections of the world. The fans are also used in connection with mechanical stokers by hundreds of establishments. Louisiana, Cuban, Porto Rican, Mexican and Brazilian sugar plantations are using the fans in connection with bagasse burners. Battleships, gunboats and other vessels in the United States Navy use the fans, as do also a number of steamships in different waters. The Dutch and Japanese navies also use them. It is almost needless to add that these devices for mechanical draft are those built by the well-known B. F. Sturtevant Co. of Boston, universally recognized as a leading authority in this branch of design and construction. The publication presenting the above facts comes from its offices.

## You Are Next.

A rare, beautiful and sparkling gem, surrounded by extensive and primeval forests, that's Rangeley; and as a fishing or health resort few places equal it. The group is made up of a chain of six lakes, and each abounds in the choicest species of salmon and trout. Fishing is a recreative sport which numbers its devotees by the tens of thousands, and why shouldn't it, for it takes one away from the turmoil and excitement of the city, and there is nothing to do but to enjoy the bright sunshine and health-giving air and the calm and quiet atmosphere that pervades the region. Everywhere about the Rangeleys are first-class camps, cabins and hotels in which one may comfortably enjoy his spring visitation. And so accessible has the region become through the introduction of the "Iron Horse" that the sportsman leaving Boston on the night Pullman is landed at his rendezvous by noon of the following day. An interesting guide on fishing, entitled "Fishing and Hunting," is published by the Passenger Department of the Boston & Maine Railroad, Boston, and for a two-cent stamp you can get it, and if you are a fisherman you need it.



# St. Louis & San Francisco Railroad Co. Refunding

## To Holders of the Following Series of Bonds:

- St. Louis and San Francisco Railway Co. Six Per Cent. Second Mortgage and Land Grant, A, B and C Bonds (\$5,590,000 outstanding).
- St. Louis and San Francisco Railway Co. Six Per Cent. Missouri and Western Division First Mortgage Bonds (\$1,019,000 outstanding).
- St. Louis and San Francisco Railway Co. Six Per Cent. First Mortgage Trust Bonds of 1880 (\$943,000 outstanding).
- St. Louis and San Francisco Railway Co. Five Per Cent. and Six Per Cent. General Mortgage Bonds (\$20,099,000 outstanding).
- St. Louis and San Francisco Railway Co. Five Per Cent. First Mortgage Trust Bonds of 1887 (\$1,099,000 outstanding).
- St. Louis, Wichita and Western Ry. Co. Six Per Cent. First Mortgage Bonds—redeemable—(\$2,000,000 outstanding).
- Fort Smith and Van Buren Bridge Co. Six Per Cent. First Mortgage Bonds—redeemable—(\$275,000 outstanding).
- St. Louis and San Francisco R. R. Co. Five Per Cent. First Mortgage Southwestern Division Bonds—redeemable—(\$1,500,000 outstanding).
- St. Louis and San Francisco R. R. Co. Four Per Cent. Central Division First Mortgage Bonds—redeemable—(\$1,962,000 outstanding).
- St. Louis and San Francisco R. R. Co. Three Per Cent. and Four Per Cent. First Mortgage Kansas City Division Bonds—redeemable—(\$3,059,000 outstanding).
- St. Louis and San Francisco R. R. Co. Four Per Cent. First Mortgage Northwestern Division Bonds—redeemable—(\$1,097,500 outstanding).
- St. Louis, Oklahoma and Southern Ry. Co. Guaranteed Four Per Cent. Bonds, Red River Division (\$4,650,000 outstanding).
- St. Louis and San Francisco R. R. Co. Four Per Cent. Consolidated Mortgage Gold Bonds (\$6,383,000 outstanding).

The St. Louis and San Francisco Railroad Company has determined to readjust and refund its bonded indebtedness and the underlying bonds secured by liens upon its system of railroads, and for that purpose has determined, subject to the obtaining of the approval by its stockholders of the requisite corporate action, to create its Refunding Mortgage Fifty-Year Gold Bonds of a total authorized amount limited to \$85,000,000, face value, at any time outstanding, of which about \$62,500,000 of bonds are to be issued and reserved for refunding purposes, and the bonds not required for refunding purposes are to be reserved and issued for additions, extensions, betterments, and improvements of its system of railroads and property, and for additional equipment and property.

In addition to unifying the indebtedness of the system and reducing interest charges, the refunding will enable the Railroad Company to finance more advantageously any additions and extensions of its system by the sale of bonds having an established market value instead of divisional bonds, which the Railroad Company has hitherto been compelled to sell on comparatively disadvantageous terms.

The Refunding Bonds will be secured by mortgage and deed of trust to the Morton Trust Company and William H. Thompson, as Trustees, subject only to existing liens, of all the Railroad Company's lines of railroad, leaseholds, and properties and shares of stock and bonds of auxiliary railroad corporations, whether now owned or hereafter acquired with the proceeds of any of the Refunding Bonds; and also by the delivery to the Trustees of all underlying bonds in exchange for which new Refunding Bonds shall be issued under said mortgage, including the entire issues of divisional bonds on the line to Kansas City, embraced in the Kansas City Division mortgage, and on the line to Denison, Texas, embraced in the Red River Division mortgage.

On completion of the refunding, the Refunding Bonds will be secured by absolute first lien upon 1,902 miles of railroad, and the equipment; and when the A, B, and C Bonds (which mature in 1906) have been exchanged, the Refunding Bonds will have the security of the first lien of these bonds on the main stem from Pacific (thirty-four miles west from St. Louis).

The comparative earnings of the St. Louis and San Francisco Railroad Company, for the nine months ending March 31, were—

	1901.	1900.
Gross.....	\$7,673,976 09	\$6,090,685 58
Operating expenses.....	4,320,054 85	3,553,832 60
Net.....	\$3,353,921 24	\$2,536,852 98
Miscellaneous income.....	66,616 09	46,418 58
Total net.....	\$3,420,537 33	\$2,583,271 56
Deduct taxes and rentals.....	262,053 93	189,341 52
Applicable to interest and dividends.....	\$3,158,483 40	\$2,393,930 04
Fixed charges.....	1,706,665 83	1,630,697 50
Surplus.....	\$1,451,817 57	\$763,232 54

It is estimated that for the year ending June 30, 1901, the total net income available for payment of fixed charges and dividends will be no less than \$1,000,000, against estimated fixed charges of \$827,500.

The Railroad Company has just taken over the newly constructed main line of railroad, extending south from Sapulpa, Indian Territory, at the Junction of the Southwestern and Central Divisions, and will have trackage rights to Sherman, Texas, from Denison, Texas, where important traffic and trackage connections have been and are being made, and it is believed that the earnings from the new line will result in largely increasing the gross and net earnings of the system.

Upon the ultimate completion of the refunding, the saving to the Railroad Company thereby will be about \$70,000 per annum in fixed charges.

The Refunding Bonds not used or required for refunding purposes can be issued only under restrictions, and on conditions for the details of which, as well as for a description of the properties and franchises mortgaged, the nature and extent of the security, the rights of the holders of bonds, and the terms and conditions upon which the bonds are issued and secured, reference is made to the terms of the Refunding Mortgage. The form of the proposed mortgage and deed of trust has been prepared by Messrs. Guthrie, Cravath & Henderson, of New York, and approved by Messrs. Seligman & Seligman, of New York, for the Syndicate Managers.

The Railroad Company has agreed to sell \$30,000,000 of the new Refunding Bonds, or such portion thereof as may be duly authorized to be issued under the Refunding Mortgage, to a syndicate of which Messrs. J. & W. Seligman & Co. are Syndicate Managers, and the Syndicate Managers have already completed arrangements for the acquisition of about \$20,000,000 of underlying bonds which are to be exchanged for new Refunding Bonds.

At the request of the Railroad Company the syndicate will offer to holders of underlying bonds the privilege to exchange the same for new Four Per Cent. Refunding Bonds to be acquired by the Syndicate, and the Railroad Company recommends holders of underlying bonds to exchange their bonds for new Refunding Bonds.

## ST. LOUIS AND SAN FRANCISCO RAILROAD COMPANY,

Dated NEW YORK, May 16, 1901.

By B. F. YOAKUM, President.

## To Holders of the following Underlying Bonds:

As Syndicate Managers of a Syndicate formed under an agreement dated April 4, 1901, we have arranged with the St. Louis and San Francisco Railroad Company to purchase, for refunding purposes, \$30,000,000, face value, of its proposed Refunding Mortgage Gold Bonds, to bear interest at the rate of **FOUR PER CENT. PER ANNUM**, and hereby offer to exchange such Refunding Bonds (to the extent to which they may be so issued and acquired by the Syndicate), for underlying bonds of the Railroad Company's system, on the following basis:

For each \$1,000, face value, of the following outstanding Bonds:	In Refunding Bonds Face Value.
6% Second Mortgage A, B and C Bonds.....	\$1,166 66
6% Missouri and Western Division First Mtge. Bonds.....	1,282 05
6% Trust Bonds of 1880.....	1,282 05
6% General Mortgage Bonds.....	1,369 23
5% General Mortgage Bonds.....	1,194 87
5% Trust Bonds of 1887.....	1,179 49
6% St. Louis, Wichita and Western First Mtge. Bonds (redeemable).....	1,179 49
6% Ft. Smith & Van Buren Bridge First Mtge. Bonds (redeemable).....	1,128 20
5% Southwestern Division Bonds (redeemable).....	1,025 64
4% Central Division Bonds (redeemable).....	1,051 28
4% Kansas City Division Bonds (redeemable).....	1,000 00
3% Kansas City Division Bonds (redeemable).....	876 93
4% Northwestern Division Bonds (redeemable).....	1,051 28
4% Red River Division Bonds.....	974 35
4% Consolidated Bonds.....	1,025 64

At the time of deposit, holders of underlying bonds will receive payment in cash of the unmatured interest accrued and accruing upon their deposited bonds to July 1, 1901, from which date the Refunding Bonds are to bear interest.

In order to avail themselves of the foregoing privilege of exchange, holders of underlying bonds must deposit, for our account as Syndicate Managers, their bonds, in negotiable form, with all unmatured coupons thereto appertaining on or before July 6, 1901, with

## MORTON TRUST COMPANY, Depository,

38 Nassau St., New York,

or with any of the following depositories:

Old Colony Trust Co., Boston;	Union Trust Co. of St. Louis, St. Louis;
Seligman Brothers, London;	Seligman & Stettinheimer, Frankfurt;
Berliner Handelsgesellschaft, Berlin;	Seligman Freres & Cie, Paris;
Alsberg, Goldberg & Co., Amsterdam.	

Depositing bondholders will receive negotiable receipts or certificates of the Morton Trust Company entitling the holders thereof to new Refunding Bonds of the Railroad Company (or to interim bonds). In exchange for the deposited bonds upon the aforesaid basis when said bonds shall have been issued and delivered to the Morton Trust Company for such exchange, or to a return of the deposited bonds, if said Trust Company shall not have received the bonds for such exchange on or prior to January 1, 1902. As the new bonds will be issued only in amounts of \$1,000, fractional amounts must be adjusted, at the option of certificate-holders, by purchase or sale, for which suitable provision will be made.

As Syndicate Managers we are also prepared to purchase for cash, at the prices set opposite thereto, all or any of the following underlying bonds which may be presented and surrendered to us on or before July 6, 1901, with all unmatured coupons attached, viz.:

6% Second Mortgage A, B and C Bonds.....	113½ and interest
6% Missouri and Western Division First Mortgage Bonds.....	125 and interest
6% Trust Bonds of 1880.....	125 and interest
6% General Mortgage Bonds.....	133½ and interest
5% General Mortgage Bonds.....	116½ and interest
5% Trust Bonds of 1887.....	115 and interest
6% St. Louis, Wichita & Western 1st Mtge. Bonds (redeemable).....	115 and interest
6% Ft. Smith & Van Buren Bridge 1st Mtge. Bonds (redeemable).....	110 and interest
5% Southwestern Division Bonds (redeemable).....	100 and interest
4% Central Division Bonds (redeemable).....	102½ and interest
4% Kansas City Division Bonds (redeemable).....	97½ and interest
3% Kansas City Division Bonds (redeemable).....	85½ and interest
4% Northwestern Division Bonds (redeemable).....	102½ and interest
4% Red River Division Bonds.....	95 and interest
4% Consolidated Bonds.....	100 and interest

We reserve the right, at any time, without notice, to alter the basis of exchange or the purchase price of any of the foregoing bonds, or to withdraw, wholly or partly, our offers to exchange or to purchase.

**J. & W. SELIGMAN & CO., Syndicate Managers.**

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

## St. Louis &amp; San Francisco Refunding.

The St. Louis & San Francisco Railroad Co. has determined to readjust and refund its bonded indebtedness and the underlying bonds secured by liens upon its system of railroads. For that purpose it will create a 50-year gold refunding mortgage to a total authorized amount of \$85,000,000. Of this sum, \$62,500,000 bonds are to be issued and reserved for refunding purposes, and the bonds not required for refunding are to be reserved for additions, extensions, improvements and for additional equipment and property. The refunding will not only reduce interest charges, but will enable the company to finance more advantageously any additions and extensions of its system by the sale of bonds having an established market value, instead of divisional bonds, which the company has hitherto been compelled to sell on comparatively disadvantageous terms. On completion of the refunding the refunding bonds will be secured by absolute first lien upon 1902 miles of railroad and the equipment, and when the A Band C bonds, which mature in 1906, have been exchanged, the refunding bonds will have the security of the first lien on the main stem from Pacific, thirty-four miles west from St. Louis. The earnings of the St. Louis & San Francisco for the nine months ended March 31 show, after interest and dividends and all charges, a surplus of \$1,451,817, against \$763,232 in the same period of the previous year. It is estimated that for the year ended June 30, 1901, the total net income available for payment of fixed charges and dividends will be no less than \$4,000,000, against estimated fixed charges of \$2,275,000. The railroad company has agreed to sell \$30,000,000 of the new refunding bonds to a syndicate of which J. & W. Seligman & Co. are managers. The latter have already completed arrangements for the acquisition of about \$20,000,000 underlying bonds, which are to be exchanged for new refunding bonds. To avail themselves of the privilege of exchange holders of underlying bonds must deposit them on or before July 6 next with the Morton Trust Co., depository, New York city, or with the Old Colony Trust Co. of Boston, the Union Trust Co. of St. Louis, Seligman Bros. of London, Seligman & Stettin of Frankfurt, Berliner Handelsgesellschaft of Berlin, Seligman Freres & Cie of Paris, or Alsborg, Goldberg & Co. of Amsterdam. The syndicate managers are also prepared to purchase for cash at certain stated prices all or any of the underlying bonds which may be surrendered to them on or before July 6 next. The right is reserved at any time without notice to alter the basis of exchange or the purchase price of the bonds affected, or to withdraw wholly or partly the offer of exchange or purchase.

## New Corporations.

The Bank of Madison, Miss., has been chartered, with \$20,000 capital stock, by C. W. Roy and others.

John R. Bland, Edward J. Penniman and others have organized the Provident Life & Annuity Co. at Baltimore.

The Bank of Dumas, Ark., recently organized, has elected X. J. Pindall, president; W. H. Burnett, vice-president, and J. M. Kitley, secretary.

The Harmony Hall Investment Co. has been formed at Galveston, Texas, with

\$50,000 capital stock, by D. B. Henderson, John Sealy and others.

The Farmers and Merchants' National Bank being organized at Cambridge, Md., has decided to increase its capital stock to \$60,000. Most of it has already been subscribed.

Alexander C. Hull has been elected president; J. L. Breathwit, vice-president, and Damon Clark, secretary, of the Security Mutual Insurance Co., recently organized at Little Rock, Ark.

The Dime Savings Bank has been formed at Annapolis, Md., with \$100,000 capital stock. William H. Rullman has been elected president; Hon. Lloyd Lowndes, vice-president, and John W. Martin, treasurer.

The promoters of the Broad Street Bank, recently organized at Richmond, Va., have secured a building for banking purposes, and it is expected to begin business about July 1. W. M. Habliston has been elected president.

The Merchants' Building and Loan Association has been chartered at Winnsboro, S. C., with \$37,500 capital stock, by J. F. McMaster and others. Mr. McMaster is president, and W. G. Jordan, secretary and treasurer.

The capital stock of the Farmers' National Bank, organized at Somerset, Ky., has been subscribed, and it is understood that the bank will open for business in June. J. S. Cooper has been selected as president; A. W. Cain, vice-president, and J. C. Ogden, cashier.

## New Securities.

The city of Sherman, Texas, has sold \$70,000 in 4½ cent. sewerage bonds at 104½.

C. H. Coffin of Cincinnati has purchased the issue of \$15,000 in school bonds of the town of Jasper, Ala.

The Germania Savings Bank of New Orleans has purchased \$25,000 of 4 per cent. bonds of the city of Shreveport, La.

Seasongood & Mayer of Cincinnati have purchased the issue of \$50,000 in bonds of High Point, N. C., paying a premium of \$3775.

The town of Humboldt, Tenn., will vote June 25 on the question of issuing \$45,000 in bonds for various purposes. Address the mayor.

Roby Robinson of Atlanta, Ga., has purchased the issue of \$25,000 in bonds of Goldsboro, N. C., on an interest basis of about 4 per cent.

The National Valley Bank of Staunton, Va., has purchased the issue of \$90,000 in 4 per cent. bonds of Rockingham county, Virginia, paying 102.

The city of Albany, Ga., is about to vote on the question of issuing \$25,000 in 4 per cent. bonds for improvements. The mayor may be addressed.

The issue of \$3000 in 5 per cent. refunding bonds of the town of Biloxi, Miss., remains unsold. The mayor may be addressed relative to it.

The town clerk of Winchester, Tenn., may be addressed relative to the issue of \$30,000 in 5 per cent. bonds, for which bids will be received until June 6.

The police jury of East Carroll parish, Louisiana, has decided to issue \$20,000 in 5 per cent. bonds. The jury may be addressed at Lake Providence, La.

The issue of bonds of Hancock county, Miss., for jail purposes will amount to \$5000. The board of county supervisors may be addressed at Bay St. Louis.

The school district of Thomasville, N. C., has decided to issue \$10,000 in bonds bearing 5 per cent. interest. The school board may be addressed at Thomasville.

The city of Bessemer, Ala., will probably place on the market in the near future an issue of bonds voted for improvement purposes. Address the mayor.

Early county, Georgia, will vote July 20 on the proposed issue of \$40,000 in improvement bonds. The board of commissioners may be addressed at Blakely, Ga.

H. E. Jones, chairman of the finance committee, may be addressed relative to the issue of \$15,000 in 5 per cent. bonds of Bristol, Va. Bids will be received until June 10.

Bids will be received until June 15 for the issue of \$10,000 in 4 per cent. bonds of the school district of Asheville, N. C. The school board may be addressed at Asheville.

An election is about to be held to decide the question of issuing \$34,000 in bonds for various improvements by the town of Marlin, Texas. The mayor will give further particulars.

E. F. Bell, city clerk, may be addressed relative to the issue of \$10,000 in bonds of Macon, Miss., bearing 5 per cent. interest. Bids will be received for the issue until June 4.

An election will be held at Tullahoma, Tenn., on June 6 to decide the question of issuing \$25,000 in 5 per cent. improvement bonds. The town clerk will give further particulars.

Bids will be received until June 1 for the issue of \$50,000 in 4 per cent. bonds of Copiah county, Mississippi. E. M. Wade, county treasurer, may be addressed at Hazlehurst.

The Missouri, Kansas & Texas Railroad Co. has given a mortgage to secure an issue of \$6,000,000 in 4 per cent. bonds. The Farmers' Loan & Trust Co. of New York is trustee for the issue.

The commissioners' court of Gonzales county, Texas, has advertised for bids for the issue of \$30,000 in improvement bonds bearing 4 per cent. interest. The court may be addressed at Gonzales.

The board of aldermen of Birmingham, Ala., has under consideration an issue of \$6500 in 6 per cent. bonds, also an issue of \$20,000 in 5 per cent. bonds. Hon. A. Drennen, mayor, may be addressed.

The Fredericktown Savings Institution of Frederick county, Maryland, has purchased the issue of \$72,000 in bonds of the city of Annapolis at a premium of \$6855. The bonds bear 4 per cent. interest.

It is announced that bids will be received until June 24 for \$20,000 worth of 4 per cent. bonds issued by the Jefferson county (Alabama) sanitary commission. Frank Y. Anderson at Birmingham is president of the commission.

## SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending May 28.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	93	
Alken Mfg. Co. (S. C.)	92	95½
American Spinning Co. (S. C.)	102	
Anderson Cotton Mills (S. C.)	128½	
Arkade Cotton Mills (S. C.)	100	
Arkwright Mills (S. C.)	120	
Augusta Factory (Ga.)	81½	
Avondale Mills (Ala.)	80	103½
Belton Mills (S. C.)	103½	
Bennettville Mfg. Co. (S. C.)	100	
Cabarrus Cotton Mills (N. C.)	148	
Clifton Mfg. Co. (S. C.)	175	185
Clinton Cotton Mills (S. C.)	120	
Courtenay Mfg. Co. (S. C.)	115	
Dallas Mfg. Co. (Ala.)	102	
Darlington Mfg. Co. (S. C.)	97	100
Eagle & Phoenix Mills (Ga.)	100	
Enoree Mfg. Co. (S. C.)	116½	
Enterprise Mfg. Co. (Ga.)	100	
F. W. Poe Mfg. Co. (S. C.)	114	118½
Gaffney Mfg. Co. (S. C.)	114	
Granby Cotton Mills (S. C.)	102	
Granby Cotton Mills (S. C.) 1st Pfd.	107	
Grantville Mfg. Co. (S. C.)	163	167
Greenwood Cotton Mills (S. C.)	98	102½
Grendel Mills (S. C.)	100	104½
Henderson Cotton Mills (N. C.)	120	
Henrietta Mills (N. C.)	200	206
John F. King Mfg. Co. (Ga.)	100	
Langley Mfg. Co. (S. C.)	110	114
Laurens Cotton Mills (S. C.)	140	
Lockhart Mills (S. C.)	100	106
Louis Mills (N. C.)	100	103½
Lynchburg Cotton Mills (Va.)	125	130
Lynchburg Cotton Mills (Va.) Pfd.	145	
Manchester Cotton Mills (S. C.)	110	116½
Mayo Mills (N. C.)	130	
McColl Mfg. Co. (S. C.)	118	
Newberry Cotton Mills (S. C.)	115	
Odell Mfg. Co. (N. C.)	109	
Orr Cotton Mills (S. C.)	100	103½
Pacolet Mfg. Co. (S. C.)	200	
Pelzer Mfg. Co. (S. C.)	123	

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Sibley Mfg. Co. (Ga.).....	80 83
Southern Cotton Mills (N. C.).....	97 101
Spartan Mills (S. C.).....	120 125
Trion Mfg. Co. (Ga.).....	130 130
Tucupau Mills (S. C.).....	135 135
Union Cotton Mills (S. C.) Pfd.....	100 100
Victor Mfg. Co. (S. C.).....	109 106
Warren Mfg. Co. (S. C.).....	90 90
Warren Mfg. Co. (S. C.) Pfd.....	105 105
Whitney Mfg. Co. (S. C.).....	120 120
Wilmington Cot. Mills (N. C.) Pfd.....	100 105
Wiscasset Mills (N. C.).....	115 115
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